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HELMINTHOLOGICAL ABSTRACTS

incorporating

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Abstracts in the present number are by:

A. E. Fountain
Mary T. Franklin
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HELMINTHOLOGICAL ABSTRACTS

INCORPORATING BIBLIOGRAPHY OF HELMINTHOLOGY
FOR THE YEAR 1955
Vol. 24, Part 6

718—Acta Genetica et Statistica Medica. Basle.

- a. ETTISCH, G., 1955.—“*Ascaris suis* ♀ in aqueous electrolyte combination.” 5 (2), 164–179.
[French & German summaries pp. 177–178.]

719—Acta Medica Veterinaria. Naples.

- a. CAPOBIANCO, A., NEGRO, L. & VACCA, C., 1955.—“Sull’attività antijaluronidasica *in vitro* delle membrane di cisti da echinococco e del liquido idatideo.” 1, 489–492. [English & French summaries p. 492.]

(719a) The authors, in experiments *in vitro* and using the viscosimetric method, were unable to demonstrate any inhibiting action of the fluid and of extracts from the wall of pulmonary hydatid cysts on the activity of hyaluronidase. G.I.P.

720—Acta Neurochirurgica. Vienna.

- a. ROCCA, E. D., 1955.—“Neurocisticercosis racemosa y su conducta quirurgica.” 4 (3), 207–212.
[English, French, German & Italian summaries pp. 211–212.]

721—Acta Veterinaria. Belgrade.

- a. NEVENIĆ, V., SOFRENOVIĆ, D., SIBALIĆ, S. & CVETKOVIĆ, L., 1955.—[Effects on the intestines of the dog of dosing with arecoline hydrobromide.] 5 (3), 53–58. [In Serbian: French summary p. 58.]

(721a) The administration of a 1% solution of arecoline hydrobromide to 23 dogs at the rate of 2 mg. or 4 mg. per kg. body-weight caused only temporary hyperaemia of the intestinal mucosa. The effect of a 0·4% solution was tested on ten dogs: at the rate of 4 mg. per kg. it produced noticeable hyperaemia and double this dose resulted in slight extravasation. As the effects were only temporary it is concluded that dosing can be repeated if necessary after 30 minutes. M.MCK.

722—Acta Veterinaria. Budapest.

- a. ANTIPIN, D. N., 1955.—[The development of helminthology in the Soviet Union.] 5 (1), 11–27. [In Russian: German summary p. 27.]
b. BABOS, S., 1955.—“Über die Lungenhelminthiasis der Hasen und Wildkaninchen in Ungarn (Vorläufige Mitteilung).” 5 (2), 167–170. [Russian summary p. 170.]
c. BABOS, S., 1955.—“Über den hämorrhagischen Charakter der durch *Protostrongylus pulmonalis* verursachten Lungenhelminthiasis des Hasen. (Vorläufige Mitteilung).” 5 (3), 299–305. [Russian summary p. 305.]
d. DOGIEL, V. A. & BIKHOVSKAYA-PAVLOVSKAYA, I. E., 1955.—“Particularités biologiques de la faune parasitaire des oiseaux de passage.” 5 (4), 377–386. [Russian summary p. 386.]
e. ERMAKOV, V. M., 1955.—[Forensic aspect of parasitic infestations.] 5 (4), 387–392. [In Russian: German summary p. 392.]
f. KOBULEI, T., 1955.—[Anatomy of *Physaloptera kotlani* Kobulei and classification of *Physaloptera* Baylis.] 5 (4), 403–408. [In Russian: German summary p. 408.]

(722b) *Protostrongylus oryctolagi* n.sp., described and figured from *Oryctolagus cuniculus* in Hungary, has a short thick provagina and five teeth on the distal ends of the crura of the

*Titles so marked throughout this number have not been seen in the original.

gubernaculum. It resembles *P. tauricus* but differs from it by the shorter spicules (280 to 310 μ long), the alae not reaching beyond the distal end of the spicule, by the presence of a beak-like process on the proximal ends of the crura and the absence of the cuticular dilatation in front of the anus.

G.I.P.

(722c) To lay its eggs the female of *Protostrongylus pulmonalis* bores into the lung tissue of the hare causing bleeding through rupture. These haemorrhages later form pigment spots. Babos' observations indicate that *P. pulmonalis* feeds on the lung tissue and can use iron in its metabolism. In 1935 Green & Shillinger had observed pigment in the lungs of a hare infected with *P. leporis* but did not describe its character or origin. The paper is illustrated by eight photomicrographs.

G.I.P.

(722e) Ermakov has examined pathologically and anatomically 41 fatal cases of cestode infections and, illustrating his paper by several case histories, concludes that cysticerciasis and echinococcosis have great significance from the forensic aspect of medicine. He also shows that serious consequences can follow careless meat inspection, e.g. an epidemic of trichinellosis.

G.I.P.

(722f) Kobulei completes his original description [which appeared in 1953 in *Acta Vet., Budapest*, 3, 189-205] of *Physaloptera kotlani* by describing both the female and the male of a copulating pair from *Sorex araneus*. In spite of its great resemblance to *Pseudophysaloptera soricina*, the species belongs to *Physaloptera*, owing to the presence of pedunculate papillae on the tail of the male. Kobulei doubts the independence of *Pseudophysaloptera* and suggests that very careful examination of the males may reveal the presence of pedunculate papillae.

G.I.P.

723—Agriculture. Paris.

- *a. SALMON-LEGAGNEUR, E., 1955.—“L’ascaridiose du porc.” 18, 71-73.

724—American Rose Annual.

- a. GOSS, R. C. & MCCLINTOCK, J. A., 1955.—“Nematodes—their source, damage and control on roses.” 40, 102-105.

(724a) In this short popular article the authors state that root-knot nematodes may injure rose bushes and that the nematodes may be in the soil before roses are planted. Growers are recommended to sow tomatoes or lettuces as test plants before planting roses, and if root-knot is found in them to treat the soil with a reliable soil fumigant.

M.T.F.

725—Anales de la Asociación Española para el Progreso de las Ciencias.

- a. APARICIO GARRIDO, J. & PRIETO LORENZO, A., 1955.—“Nuestra experiencia sobre el tratamiento de la anquilostomiasis.” 20 (4), 918-922.

(725a) Aparicio Garrido & Prieto Lorenzo describe the results of the treatment of 250 cases of ancylostomiasis in the Madrid area over a period of five years. A variety of drugs was used; thymol, carbon tetrachloride, tetrachlorethylene, oil of chenopodium and gammexane (benzene hexachloride). The most efficient of these compounds was found to be carbon tetrachloride but tetrachlorethylene was almost as good and less toxic.

C.W.

726—Anales de la Facultad de Medicina de Montevideo.

- a. BELLO, R. DI, 1955.—“El hidatidopericardio.” 40 (6), 244-259. [English summary pp. 257-258.]

727—Annales Pharmaceutiques Françaises.

- a. CAVIER, R., 1955.—“Propriétés anthelmintiques de la diéthylène-diamine et de ses dérivés.” **13** (7/8), 539-556.

(727a) Cavier reviews our present knowledge of the anthelmintic efficacy of piperazine and a number of its derivatives and describes his recent investigations. From his observations he recommends the two comparatively new compounds, the diphenylacetate and the dilaurate of piperazine; these have shown great promise in clinical trials and have an even lower toxicity than the base itself.

S.W.

728—Annali dell'Istituto Carlo Forlanini. Rome.

- *a. ZUBIANI, M. & SEBASTIANI, G., 1955.—“Su una rarissima causa di emottisi: l'infestazione da *Anchilostoma duodenale*.” **15** (4), 466-470.

729—Annali di Medicina Navale e Tropicale.

- a. PAOLA, G. DE & MASTRANDREA, G., 1955.—“Aspetti rettosigmoidoscopici di alcune elmintiasi.” **60** (5), 532-536. [English summary p. 536.]

730—Annals of Internal Medicine.

- a. MARCUS, S. & MILLER, Jr., R. V., 1955.—“An atypical case of trichinosis with report of electromyographic findings.” **43** (3), 615-622.

731—Annals of the Phytopathological Society of Japan.

- *a. KAWAMURA, T., 1955.—[Observations on the nematocidal action of some organo-phosphorus insecticides and vermifuge.] **19**, 158 [In Japanese.]

732—Antiseptic. Madras.

- a. DE, K. P., 1955.—“An interesting case of filariasis.” **52** (7), 552.

(732a) De describes a case of retro-peritoneal filarial lymphangitis. The patient had complained of pain and swelling in the abdomen and difficulty in micturition. A few microfilariae of *Wuchereria bancrofti* were found in the blood and there was an eosinophilia of 64% and fever. Treatment with hetaoran was successful.

S.W.

733—Anuarul Institutului de Patologie si Igienea Animală. Bucharest.

- a. MIHAESCU, N. & ŞUTEU, E., 1955.—“Anchte asupra răspândirii helmintiazelor la animalele domestice în R.P.R.” **5**, 263-273. [French & Russian summaries pp. 271-273.]
 b. LUNGU, V., MIHAESCU, N., ŞUTEU, E. & STOICAN, E., 1955.—“Acțiunea antihelmintică a asociațiilor fenobent+filixonă și tetrachlorură de carbon+filixonă în helmintiazele mixte la păsări.” **5**, 274-284. [French & Russian summaries pp. 282-284.]

(733a) The helminth infections revealed on examination of horses, cattle, sheep, pigs and fowls on eleven farms in different geographical zones of Rumania are tabulated and their frequency indicated. Intestinal strongylosis in horses, sheep and pigs was most frequent in the autumn and monieziasis in sheep in May.

G.I.P.

(733b) Following the administration of 1 gm. phenobent (a substance containing 66% pure phenothiazine, 33% bentonite and 1% zinc stearate) and 0.1 gm. of filixan per kg. body-weight to 30 fowls with mixed helminth infections, *Ascaridia* were passed by 96% of the birds reducing intensity by 87.8% and *Heterakis* by nearly 90% reducing intensity by 73.04%; while with cestodes the intensity was reduced by 73.4% in 36.4% of the birds, another 31.8% passing segments only. This mixture, given twice with a 21-day rest, was then used to treat 8,904 fowls with good results. A mixture of 2 c.c. carbon tetrachloride and 0.1 gm. filixan per kg. proved less effective.

G.I.P.

734—Archiv für Toxikologie.

- a. KOECHER, P. H., 1955.—“Mitteilung über einem Fall von Vergiftung mit dem Wurmmittel Omniverm (Hexachlorcyclohexan).” **15** (6), 326–327.

(734a) Koecher records a case of poisoning in a three-year-old girl who was undergoing treatment for ascariasis with the hexachlorcyclohexane preparation Omniverm. She tolerated the prescribed dose well, but had accidentally swallowed 15 to 20 dragees. She was taken to hospital in a collapsed and cyanosed state, but recovered one hour after her stomach had been washed out.

A.E.F.

735—Archives Françaises de Pédiatrie.

- a. GIRAUD, P., ORSINI, A., MANGIAPAN, T. & LOUCHET, E., 1955.—“Un cas de distomose hépatique chez une enfant de 7 ans et demi.” **12** (2), 209–212.

(735a) The authors record a case of double infection with *Fasciola hepatica* and *Dicrocoelium dendriticum* in a child at Arles. The liver was covered with nodules with the appearance of miliary abscesses and *Fasciola* ova were found in these. Later the duodenal fluid was found to contain ova of *Dicrocoelium* and those of both species were found together in the faeces. Treatment with various anthelmintics (glucantime, emetine, notezine, pheniodol) over a period of two years caused the disappearance of eggs from the duodenal fluid in May 1954 but these reappeared in October although the child had no symptoms and was in an excellent state of health.

S.W.

736—Archives. Institut Grand-Ducal de Luxembourg. Section des Sciences Naturelles, Physiques et Mathématiques.

- a. HOFFMANN, J., 1955.—“Faune hirudinéenne du Grand-Duché de Luxembourg.” **22**, 175–211.
 b. HOFFMANN, J., 1955.—“Signalement d'une importante station de *Hirudo medicinalis* L. au Grand-Duché de Luxembourg.” **22**, 213–222.
 c. HOFFMANN, J., 1955.—“Quelques caractères éthologiques de la Piscicolidée: *Cystobranchus respirans* Troschel. (Communication provisoire).” **22**, 223–225.

737—Archives de l'Institut Pasteur de Madagascar.

- *a. DODIN, A. & ROGÉ, 1955.—“Variation de la vitesse de sédimentation et de la formule sanguine chez des porteurs de microfilaires de *Wuchereria* avant et après traitement par un sel de piperazine.” Year 1955, pp. 13–16.

738—Archives des Maladies de l'Appareil Digestif et des Maladies de la Nutrition.

- a. PARIENTE, P., 1955.—“Kyste hydatique du foie traité par la méthode de Cuervo.” **44** (11), 1176–1178.

739—Archives de Médecine Générale et Tropicale.

- a. GALLAIS, P., RUZIÉ, J. & DARCOURT, 1955.—“La cysticercose cérébrale. Considerations cliniques biologiques et perspectives thérapeutiques actuelles.” **32** (3), 83–93.

(739a) The authors report on two cases of cerebral cysticercosis in adults. The chief clinical sign in each case was epileptiform attacks and the diagnosis was confirmed by biopsy. Treatment with notezine did not give rise to any allergic reactions and caused rapid amelioration of the symptoms. Biopsies after treatment revealed that the cysticerci had been killed and that they were gradually resorbed.

S.W.

740—Archives de Zoologie Expérimentale et Générale.

- a. GONDTRAN, N., 1955.—“Remarques sur les glandes tégumentaires de *Glossosiphonia complanata* L. (Hirudinée Rhynchobdelle).” Notes et Revue No. 3, 92, 93-115.
- b. ALIGON, C., 1955.—“Contribution à l'étude du développement de la cuticule de *Cysticercus pisiformis* Zeder (Cestodes Cyclophyllidés).” Notes et Revue No. 3, 92, 135-150.

(740b) Aligon has studied the formation of the cuticle of *Cysticercus pisiformis* in the livers of experimentally infected rabbits. The cuticle appears very early, between the fourth and sixth days after infection, and is formed at the same time on the whole cysticercus. Histologically it is made up of several layers with different staining reactions and it contains a lattice-work of fibrils which are the continuation of cytoplasmic trabeculae of the cells of the parenchyma. There appears to be no true epithelium but about one day before cuticle formation sub-cuticular cells, recognizable by their size and the structure of their nuclei, can be seen at the periphery of the cysticercus.

S.W.

741—Archivos Médicos Panameños.

- *a. CALERO, C., ORTIZ, P. & SOUZA, L. DE, 1955.—“Trematodiasis en gatos de Arraijan y Chorrera, Rep. de Panamá.” 4 (1), 37-41.

742—Archivos Uruguayos de Medicina, Cirugía y Especialidades.

- a. BELLO, R. DI, HORJALES, J., SANJINÉS, A., BADANO, J. C. & ARSUAGA, J., 1955.—“Quiste hidático del corazón operado.” 47 (1/3), 43-55. [English summary p. 54.]
- b. VENTURINO, W. & BOSCH DEL MARCO, L. M., 1955.—“Algunos aspectos del tratamiento quirúrgico de la hidatidosis pleuro-pulmonar. Datos estadísticos sobre 91 observaciones clínicas.” 47 (1/3), 56-64.

743—Arquivos Brasileiros de Medicina.

- a. PEREIRA, O. A., 1955.—“Estrongiloidose.” 45 (11/12), 455-470.

744—Arquivos Brasileiros de Medicina Naval.

- *a. PRATA, A. R., 1955.—“Esquistossomose mansoni, doença de Chagas, megaesôfago, calazar na Bahia.” 16 (56), 4029-4034.

745—Arquivos de Cirurgia Clínica e Experimental. São Paulo.

- *a. SADEK, H. M. & CHAIB, S. A., 1955.—“Anemia hemolítica hereditária associada à esquistosomiasi hépatoesplênica.” 18 (3), 132-142.

746—Arquivos de Neuro-Psiquiatria. São Paulo.

- a. ASSIS, J. L. DE, CAMPOS, E. P. DE & FRANÇA, L. C. M., 1955.—“Síndrome parkinsoniana na cisticercose cerebral. Estudo anátomo-clínico de um caso.” 13 (1), 44-49. [English summary p. 49.]

747—Atti della Accademia Nazionale dei Lincei. Rendiconti. Classe di Scienze Fisiche, Matematiche e Naturali. Rome.

- a. RANZOLI, F., 1955.—“Osservazioni preliminari sulle cellule vitelline e gli ovociti di *Fasciola hepatica* L.” Serie 8, 19 (3/4), 171-177.

748—Auburn Veterinarian. Alabama.

- *a. JORDAN, E. M., 1955.—“The occurrence of a *Spirocerca lupi* nodule in the trachea of a dog —case report.” 11 (3), 125-127.
- *b. HARRIS, A. L., 1955.—“Studies of various husbandry practices in controlling *Ascaris lumbricoides* in hogs.” 11 (3), 128, 144.
- c. TURK, R. D., 1955.—“Parasitism of sheep and goats.” 12 (1), 11-13.

749—Australian Journal of Chemistry.

- a. CYMERMANN-CRAIG, J., ROGERS, W. P. & WARWICK, G. P., 1955.—“Chemical constitution and anthelmintic activity. II. Preparation of some analogues of phenothiazine.” *8* (2), 252–257.

(749a) Cymerman-Craig *et al.* describe the preparation of a number of substituted diphenylamines, phenothiazines and phenoselenazines. A method for the synthesis of 2,3-dihydrobenzo-1,4-thiazine is given in detail. W.P.R.

750—Bimonthly Bulletin. North Dakota Agricultural Experiment Station.

- a. SHUMARD, R. F., HANSON, D. J. & EVELETH, D. F., 1955.—“Piperazine compounds successfully used as worm-destroying agents.” *18* (1), 25–26.

751—Biochemical Journal.

- a. RATHBONE, L., 1955.—“Oxidative metabolism in *Ascaris lumbricoides* from the pig.” *61* (4), 574–579.

(751a) Rathbone prepared a particulate fraction from the muscle of *Ascaris lumbricoides* which contained a succinoxidase system. Oxygen uptake in air was about $80\text{ }\mu\text{l}$. per mg. N per hour; this was about three times greater in pure oxygen. Methylene blue increased the uptake in pure oxygen which was further increased when ethylenediaminetetraacetic acid and coenzyme I were added. Succinate, fumarate, L-malate and L-oxoglutarate supported oxygen uptake of the fortified particulate suspensions but citrate, *cis*-aconitate, oxalacetate and pyruvate were ineffective. Cytochrome oxidase could not be detected. Oxidative phosphorylation (P/O about 0·3) occurred in fortified suspensions to which perienteric fluid had been added.

W.P.R.

752—Biológia. Bratislava.

- a. KAŠTÁK, V., 1955.—“*Echinorhynchus salmonis* Müller 1792 (Acanthocephala), nový parazit ryb na území ČSR.” *10* (1), 76–79. [German & Russian summaries p. 79.]
 b. DYK, V., 1955.—“Současný stav průzkumu parazitů slovenských ryb.” *10* (2), 162–172. [German & Russian summaries p. 172.]
 c. KAŠTÁK, V., 1955.—“Nález trematoda *Crepidostomum farionis* Müller, 1784 parazita ryb na Slovensku.” *10* (2), 224–227. [German & Russian summaries p. 227.]
 d. KAŠTÁK, V., 1955.—“Nová cicavica rodu *Dactylogyrus* Diesing, 1850.” *10* (3), 324–327. [German & Russian summaries pp. 326–327.]
 e. KAŠTÁK, V., 1955.—“*Dactylogyrus minutus* Kulwieć, 1927 a *Dactylogyrus phoxini* Malewitzkaja, 1949 (Monogeneidea) nové parazity ryb na území ČSR.” *10* (4), 511–513. [German & Russian summaries p. 513.]

(752a) 26·3% of *Salmo trutta* from a brook in the Stratená valley were infected with *Echinorhynchus salmonis*. One to 22 specimens of the worm were found per host. M.MCK.

(752b) Dyk recounts literature and his own survey of the parasite fauna of fresh-water fish in Slovakia and lists the 43 species now known for Slovakia which include 28 helminths and two leeches. G.I.P.

(752c) *Crepidostomum farionis* was found in 63% of *Salmo trutta* from a brook in the Stratená valley at an intensity of one to eleven worms per fish. It is recorded for the first time from this host in Slovakia. G.I.P.

(752d) *Dactylogyrus hovorkai* n.sp., described and figured from *Cyprinus carpio* in Czechoslovakia, is very similar to *D. solidus* but is differentiated from known species of the genus by shape and measurements of the body and the anchors. G.I.P.

(752e) *Dactylogyrus minutus* and *D. phoxini*, infecting 50% and 32% of *Cyprinus carpio* on a fish-breeding farm are recorded for the first time from Czechoslovakia. G.I.P.

753—Boletim. Directoria da Produção Animal. Rio Grande do Sul, Brazil.

- *a. FREIRE, J. J., 1955.—[A strange new disease in our sheep, *Thysanosoma actinoides* Diesing, 1834.] **11** (21), 3-15. [In Portuguese.]
- *b. CORRÉA, O., 1955.—[Studies on animal hydatidosis I.] **11** (21), 43-45. [In Portuguese.]
- *c. CORRÉA, O., 1955.—[Anthelmintics and their use in gastrointestinal strongylosis of ruminants.] **11** (22), 122-127. [In Portuguese.]

754—Boletim do Hospital das Clínicas da Faculdade de Medicina da Universidade da Bahia.

- *a. GUIMARÃES, N. A., AGUIAR, O. G. & CARNEIRO, C. G., 1955.—“Pruridermias e parasitoses intestinais. I. Pruridermias e esquistossomose.” **1** (3), 1-8. [English summary.]
- *b. ANDRADE, Z. A. & GUIMARÃES, A. C., 1955.—“Síndrome de Budd-Chiari e esquistosomose mansônica. (Forma hepato-esplênica).” **1** (4), 18-32. [English summary.]

755—Boletim Pecuário. Lisbon.

- a. BORGES FERREIRA, L. D. B., 1955.—“O *Cystocaulus ocreatus* (Railliet e Henry, 1907) Mikacic, 1935 nos ovinos em Portugal.” **23** (1), 2-18. [English & French summaries p. 17.]
- b. BORGES FERREIRA, L. D. B., 1955.—“A *Capillaria columbae* (Rudolphi, 1819) Travassos, 1915. (Contribuição para o estudo dos helmintas das aves em Portugal).” **23** (1), 19-29. [English & French summaries p. 28.]

(755a) *Cystocaulus ocreatus* is recorded for the first time from Portugal where it was found in sheep. Borges Ferreira tabulates the measurements of his specimens with those reported by previous workers for this species. He suspects that the infection is wide-spread in Portugal.

M.MCK.

(755b) *Capillaria columbae*, hitherto recorded in Portugal only in *Columba livia domestica*, is now reported from *Gallus gallus domesticus* and *Meleagris gallopavo*. The body measurements of the worms are listed and those reported by other authors for *Capillaria columbae* are tabulated. The racket shape of the proximal end of the spicule is considered to be of value in the diagnosis of this species.

M.MCK.

756—Boletim da Sociedade Portuguesa de Ciências Naturais.

- a. TENDEIRO, J., 1955.—“Sobre um novo trematódeo digenético *Dolichoenterum manteri* n.sp., parasita do saílo, *Conger conger* (L.) algumas considerações sobre a sistemática da subordem Gasterostomata Odhner 1905.” Serie 2, **5**, 19-43. [English summary pp. 38-42.]

(756a) Tendeiro describes a new gasterostome trematode, *Dolichoenterum manteri* n.sp., from a single specimen found in the intestine of a conger eel caught off the Algarve coast of southern Portugal. The discovery of this new species has necessitated a modification of Ozaki's original definition of the genus and has led Tendeiro to divide the suborder Gasterostoma into two families (Bucephalidae and Prosorhynchidae) each of which is separated into two subfamilies.

C.W.

757—Boletín de la Real Sociedad Española de Historia Natural.

- a. ANADÓN, E., 1955.—“Estudio de la distribución de longitudes y volúmenes en las especies españolas del orden Ascaridata (Raill.) y la clase Acanthocephala (Rudol.).” Sección Biológica, Year 1954, **52**, 137-145.

(757a) Anadón measures the lengths and breadths of ascarids and acanthocephalans and from the mean values of these dimensions he calculates the mean volumes of the sexes in a number of species. The results are plotted as histograms and the conclusion is drawn that the graphs are polymodal and that the family Heterocheilidae appears to be more homogeneous than the Ascaridae.

C.W.

758—Boletín de Zootecnia. Córdoba.

- a. MATEOS NEVADO, B., 1955.—“Parasitación por estrongylos, parascaris y oxiuros de los équidos del término de El Real de la Jara (Sevilla).” **11** (116), 103–111. [English summary p. 110.]

(758a) The faeces of eleven mules, seven horses and two donkeys chosen at random from a district of Sevilla were examined and ten of the animals were found infected with *Parascaris*, eleven with *Oxyuris* sp. and all 20 with *Strongylus* sp. M.MCK.

759—Boletines y Trabajos. Sociedad de Cirugía de Buenos Aires.

- *a. NAVIERO, R., 1955.—“Quiste hidatídico del corazón. Operación. Curación.” **39** (13), 338–345.
 *b. MARTINEZ, J. L., BREA, M. M. & SPÁTOLA, J., 1955.—“Quiste hidatídico del corazón.” **39** (13), 345–354.

760—Bollettino Chimico-Farmaceutico.

- a. FOWST, G., 1955.—“Sulla tossicologia delle felci antielmintiche.” **94** (8), 306–324; (9), 346–357.

761—British Journal of Ophthalmology.

- a. BUDDEN, F. H., 1955.—“Incidence of human infection with onchocerciasis in different communities in relation to the incidence and type of the ocular lesions.” **39** (6), 321–332.

762—Bulletin de l'Académie Royale de Médecine de Belgique.

- a. DEROM, E., MEIRSMAN, J., LANDSHEERE, B. C. DE & DEROM, F., 1955.—“Première observation belge de distomatose humaine par grande douve hépatique (*Fasciola hepatica*). Découverte opératoire chez un malade atteint de lithiasse biliaire et d'ictère hémolytique familial.” **20** (10), 392–406.

763—Bulletin. American Iris Society.

- a. HANNON, C. I., 1955.—“Root knot nematode found on rhizomatous iris.” No. 137, pp. 12–15.
 *b. DOUGLAS, G., 1955.—“Scorch—nematodes.” No. 137, pp. 16–18, 20.

(763a) Hannon records a heavy infestation of the roots of rhizomatous iris [*Iris germanica*] by *Meloidogyne incognita* var. *acrita*. Some infested roots showed no galls, others were swollen to three to four times their normal diameter. The leaves of badly infested plants became yellow and died from the tips downwards. It is pointed out that further investigations are required to determine whether the nematodes alone caused the damage described or whether some other pathogen was also present. M.T.F.

764—Bulletin Biologique de la France et de la Belgique.

- a. BRUN, J., 1955.—“Evolution de la prophase méiotique chez *Caenorhabditis elegans* Maupas 1900, sous l'influence de températures élevées.” **89** (3), 326–346.

(764a) Brun has studied the effect of temperature on the nuclear divisions during oogenesis in *Caenorhabditis elegans*. Between 13°C. and 20°C. the behaviour remains practically normal. When maintained at temperatures from 24°C. to 30°C. oogenesis becomes very abnormal; in spite of a certain stability in pachytene the ovary becomes progressively disorganized and the nuclei are eliminated. Doubling and further multiplication of the chromosomes and the formation of huge hyperchromatic elements are the most striking manifestations. At 31°C. to 32°C. the further evolution of the oocytes is blocked almost completely, the cells developing extremely slowly and abnormally. The pathological character of these changes is demonstrated if the animals are returned to 13°C. when anomalies analogous to those which develop after simple treatment at 24°C. to 30°C. are observed. Nematodes, still at the stage of spermatogenesis, which are treated at temperatures of 31°C. to 32°C. become incapable

of proceeding to oogenesis, but if returned to temperatures between 13°C. and 28°C. this will occur although with abnormalities. The possible significance of these phenomena in the evolution of forms parasitic in warm-blooded animals is discussed.

S.W.

765—Bulletin of the Clinical and Scientific Society Abbassiah Faculty of Medicine, Cairo.

- *a. NAGATTY, H. F., RIFAAT, M. A. & SALEM, S., 1955.—“A preliminary report of the anthelmintic properties of two piperazine compounds—piperazine adipate (Entacyl, B.D.H.) and piperazine citrate (Antepar, B.W.).” **6** (2), [Reprint 5 pp.]

766—Bulletin of the Los Angeles Neurological Society.

- a. BAILEY, F. W., 1955.—“*Cysticercus cellulosae* of the cisterna magna. Report of case.” **20** (4), 193–196.

767—Bulletin Médical de l'Afrique-Occidentale Française.

- *a. BELLON, J., 1955.—“Essai de traitement de la bilharziose intestinale par l'oxyde stanneux.” **12**, 35–39.
- *b. RAOULT, A., MICHEL, L. & DIOUF, J., 1955.—“Nouveaux essais de traitement de la bilharziose par l'A.B.5.” **12**, 137–220.

(767a) [This paper also appears in *Bull. Soc. Pat. exot.*, 1955, **48**, 197–201. For abstract see *Helm. Abs.*, **24**, No. 207d.]

768—Bulletin Mensuel. Société de Médecine Militaire Française.

- *a. CANTAGRILL, M., TAUZIN, J., TISSIER, M. & LÉVY, P., 1955.—“Un foyer de distomatose humaine à Agadir.” **49** (3), 75–79.

769—Bulletin of the National Institute of Agricultural Sciences, Chiba. Series G. Animal Husbandry.

- a. OSHIO, Y. & FURUTA, I., 1955.—[Studies on the hyaluronidase in some parasitic nematodes.] No. II, pp. 47–56. [In Japanese: English summary p. 56.]
- b. OSHIO, Y. & FURUTA, I., 1955.—[Histopathological studies on the skin lesion due to cutaneous infestation of *Strongyloides ransomi*.] No. II, pp. 57–66. [In Japanese: English summary pp. 63–64.]

(769a) Oshio & Furuta have demonstrated the presence of hyaluronidase in infective larvae of the skin-penetrating nematodes *Ancylostoma caninum*, *Stephanurus dentatus* and *Strongyloides ransomi* and also in the infective larvae of *Ascaris* and *Strongylus*. The two last-mentioned, although not normally skin-penetrating, have also been shown to be capable of penetrating animal skin if they are placed on it.

S.W.

(769b) *Strongyloides ransomi* larvae when placed on the skin of pigs, cats, rats and fowls, penetrated into the dermis within five minutes entering not only through the hair follicles and subcutaneous or sweat glands, but also through the horny layer. The lesions caused in the skin were expansion and congestion of capillaries (but no haemorrhage), expansion of lymph vessels with oedema in the area, and severe inflammation around blood vessels, but mechanical destruction was small and dermatitis occurred in surface skin only.

G.I.P.

770—Bulletin of the National Society of India for Malaria and Other Mosquito-Borne Diseases.

- a. SUBRAMONI, V. R., 1955.—“A preliminary note on the finding of filarial nematodes in *Culex fatigans* (Wied) in Bombay suburbs.” **3** (4), 122.

(770a) The infection of *Culex fatigans* (16 out of 662 examined) with filarial nematodes is recorded, apparently for the first time, from Greater Bombay.

G.I.P.

771—Bulletin de la Société d'Histoire Naturelle de l'Afrique du Nord.

- a. JACQUEMIN, P. & VINCENT, G., 1955.—“Nouvelle technique pour la détection des œufs d'helminthes dans les poussières souillées.” **46** (7/8), 295–300.

(771a) Jacquemin & Vincent compare the techniques for detecting helminth ova (principally those of *Ascaris*) in soil, which have been described by Spindler, by Caldwell & Caldwell and by Maplestone & Mukerji. They describe in detail the technique which they have found to be more efficient; this requires only simple apparatus, namely, test-tubes, a hand centrifuge, urine jars and slides and cover-slips and is recommended for use in the field. S.W.

772—Bulletin de la Société Vétérinaire de Zootechnie d'Algérie.

- a. CAMOU, R. & VERCELLOTTI, H., 1955.—“Traitement des verminoses du porc par des injections sous-cutanées de tétrachlorure de carbone en solution huileuse.” **3** (2), 19.

(772a) Camou & Vercellotti recommend the treatment of worm infections in swine by subcutaneous injection of an oily solution of carbon tetrachloride at the rate of 0·2 c.c. per kg. body-weight. Thirty-six pigs in very bad condition and suffering from rickets and multiple helminthiasis (ascariasis both intestinal and pulmonary, oesophagostomiasis, metastrongylosis and tapeworm infection) were completely rid of their worms and restored to vigorous health by this treatment accompanied by subcutaneous injection of an oily solution of vitamins A and D. J.M.W.

773—Bulletin. South Dakota Agricultural Experiment Station.

- *a. HARSHFIELD, G. S., CARLSON, F. N. & DORSEY, T. A., 1955.—“Observations on parasitism in sheep in northwestern South Dakota.” No. 447, 19 pp.

774—Bulletin of University of Osaka Prefecture. Series B. Agriculture and Biology.

- a. NODA, R., 1955.—“*Trichuris* species from giraffe and cattle.” **5**, 119–126.

(774a) The whipworms recovered in large numbers from a dead *Giraffa reticularis* in the Tennozi Zoo in Osaka and *G. camelopardalis* in the Ueno Zoo in Tokyo were *Trichuris giraffae*. Noda, identifying this material with that of Clot-Bey, 1839, insists that this species of whipworm, which is specific to giraffe, does exist and redescribes it. A few *T. globulosa*, *T. spiracollis* and *T. ovis* were also found, the first two for the first time in *G. reticularis*. These and *T. discolor* are described. *T. discolor* was present in large numbers in cattle slaughtered at Sakai and is reported for the first time from Japan. G.I.P.

775—Canadian Services Medical Journal.

- a. COLBECK, J. C. & GOFTON, J. P., 1955.—“Eosinophilia and filariasis in a Canadian veteran.” **11** (11), 803–807.

(775a) Colbeck & Gofton describe a case of filarial infection in a white Canadian soldier who had served in Korea. The patient had a persistent asymptomatic eosinophilia of about 71%. Examination of some enlarged lymph glands from the axilla revealed the presence of microfilariae although none were observed in the peripheral blood. S.W.

776—Časopis Národního Musea.

- a. LUCKÝ, Z., DYK, V. & BÁRTÍK, M., 1955.—“Parasitofauna ryb v oblasti reservace velký tisý u Lomnice nad Lužnicí.” **124** (1), 55–64. [Russian summary p. 63.]

(776a) The 20 parasite species, 14 of which were helminths and two were leeches, found on examination of 145 fish (9 species) from ponds near Lomnice on the river Luznice are listed with their hosts. G.I.P.

777—Československá Pediatrie.

- *a. HLOUSKOVÁ, Z. & HOLÝ, J., 1955.—“Parasitární plicní onemocnění.” [Paragonimus in children.] **10** (2), 88-92.
- *b. OTRUBA, K., 1955.—“Léčba askaridias piperazinem.” **10** (8), 609-612.

778—Chinese Journal of Internal Medicine.

- *a. HUANG, S. H., 1955.—[Passing of *Ascaris lumbricoides* from urethra: report of a case.] **3** (1), 34. [In Chinese.]

779—Chinese Journal of Ophthalmology.

- *a. HSIANG, H. F., 1955.—[*Thelazia callipaeda* in human eye: report of one case.] **5** (1), 58-59. [In Chinese.]

780—Chinese Journal of Surgery.

- *a. SHANG, T. Y. & WANG, T. S., 1955.—[Hydatid cyst.] **3** (1), 28-32. [In Chinese.]

781—Ciencia Veterinaria. Madrid.

- *a. ROMAGOSA VILÁ, J. A., 1955.—“Sugerencias sobre la lucha contra la triquinosis.” **16**, 209-218.

782—Cirugía. Madrid.

- a. ANASTASIO, J. V. & PERAITA, P., 1955.—“Equinococcosis encefálica.” **2** (5), 31-42. [English, French & German summaries p. 42.]

783—Comunicările Academiei Republicii Populare Romîne.

- a. NITZULESCU, V., POPESCU, I. & CRACIUM-SIMIONESCU, O., 1955.—“Asupra evoluției parazitului *Hymenolepis diminuta*.” **5** (10), 1557-1558. [French & Russian summaries p. 1558.]

(783a) Nitzulescu *et al.* report the case of a girl who voided 49 strobilae of *Hymenolepis diminuta* after treatment with 2.5 gm. of fern extract administered with a solution of sodium bicarbonate. Cases of heavy infection such as this one suggest that the transmission of *H. diminuta* is direct without the intervention of an intermediate host. M.MCK.

784—Concours Médical.

- *a. HARDOUIN, J. P. & GUERRE, J., 1955.—“*Schistosoma mansoni*. Etiologie d'une éosinophilie sanguine à Paris.” **77** (30), 2939-2940.
- *b. LAGRAULET, J., 1955.—“L'onchocercose. Problème médical et social en A.O.F.” **77** (49), 4555-4556.

785—Dansk Pelsdyravl.

- *a. MOMBERG-JØRGENSEN, H. C., 1955.—[Fur farming and trichinosis.] **18**, 475-478. [In Danish.]

786—Deutsche Schlacht- und Viehhofzeitung.

- *a. VARGES, W., 1955.—“Versuche über das Abtöten von Trichinen durch Kälte.” **55**, 297-300.

787—Deutsches Medizinisches Journal.

- a. ROSENBAUM, F. J., 1955.—“Leberechinokokkus.” **6** (9/10), 317-319.

(787a) Rosenbaum considers that post-war conditions will have led to an increased incidence of hydatid and that it will appear in districts where it was previously unknown. He therefore gives a general account of hydatid of the liver, stressing the need for laparoscopy in any case of unexplained enlargement of the liver. A.E.F.

788—Día Médico. Buenos Aires.

- *a. ZUBIRIA, R. DE, 1955.—“Tratamiento de la teniasis (*T. saginata*) con metoquina previa intubación duodenal (método de Bonilla-Naar). Revisión de síntomas y signos clínicos.” **27** (23), 629-632.
- *b. CERESETO, P. L., 1955.—“Consideraciones sobre una estadística de equinococosis tácticas quirúrgicas.” **27** (53), 1694-1695.

789—Diseases of the Chest. Chicago.

- a. LÓPEZ MAJANO, V., 1955.—“Diagnosis of hydatid pulmonary cyst.” **28** (1), 67-75. [French & Spanish summaries p. 75.]

790—Dissertation Abstracts.

- a. GOOD, III, J. M., 1955.—“The influence of several soil management practices in Florida on nematode populations.” **15** (11), 1956.
- b. CLARK, D. T., 1955.—“Identification of intestinal cell inclusions in certain nematodes.” **15** (11), 2349.
- c. SHERMAN, H. J., 1955.—“The germ cell cycle of *Paramphistomum microboothrioides* Price and McIntosh.” **15** (11), 2355.

(790a) The thesis, of which this is an abstract, deals first with the fluctuations in populations of plant-parasitic, predacious and saprophagous nematodes under continuous cropping and two- and three-course rotations. This is followed by a study of the build up of *Belonolaimus gracilis* in pots of six winter cover crops grown in the green-house. In field plots the influence of soil fertility was examined as it affected the size of population of plant-parasitic nematodes. Finally an investigation was made of the Christie-Perry method of extracting nematodes from soil and the percentage of nematodes removed by various processes was estimated. M.T.F.

(790b) Clark has identified “strongylin”, an intestinal cell inclusion found in *Strongylus vulgaris*, *S. edentatus*, *S. equinus* and *Ancylostoma caninum*, as beta zinc sulphide, and “rhabditin”, a cell inclusion found in *Rhabditis strongyloides*, as xanthine. S.W.

(790c) Sherman has studied experimentally the germ cell cycle in *Paramphistomum microboothrioides* in its intermediary, *Stagnicola cubensis*. No satisfactory technique for sectioning the eggs was developed. The embryology of the redia was studied from the first cleavage to the fully formed redia. The early development of the cercaria was the same as that in the redia. At no time were maturation divisions observed in the larvae and there were no indications of gonads in the larval stages. In each case the germinal cell is set aside at the first cleavage; it continues to divide infrequently and adds, in the redia, to the somatic tissue. The abstract states that a description of the embryology of the cystogenous cells, intestine, excretory system, nervous system, pigmentation, eye and acetabulum in the cercaria is given in the dissertation. S.W.

791—Dokladi Akademii Nauk SSSR.

- a. LOGACHEV, E. D., 1955.—[On the finer structures of the integumentary cuticle of trematodes and cestodes.] **103** (5), 941-943. [In Russian.]
- b. SPASSKI, A. A., 1955.—[On the existence of a separate ovary in *Rajotaenia gerbilli* Wertheim, 1954, and on the position of this cestode in the family Catenotacnidae Spasski, 1950.] **103** (5), 945-948. [In Russian.]
- c. GOFRMAN-KADOSHNIKOV, P. B., KHOROSHCHO, E. V. & SMIRNOV, M. I., 1955.—[The significance of chemical factors on the migration of nematodes.] **103**, (6), 1127-1130. [In Russian.]
- d. LOGACHEV, E. D. & FEDYUSHINA, N. A., 1955.—[Ability of the connective tissue of cestodes to form cuticle under pathological conditions.] **103** (6), 1131-1133. [In Russian.]
- e. SOKOLOV, V. E., 1955.—[The distribution of larval *Phyllobothrium delphinii* Bosc. in the skin of sperm whales and its dependence on the skin structure.] **103** (6), 1135-1137. [In Russian.]
- f. OVCHARENKO, D. A., 1955.—[*Eurycephalus dogieli* n.gen., n.sp.—new parasitic trematode of bittern.] **104** (1), 157-159. [In Russian.]

- g. SPASSKI, A. A., 1955.—[On the origin and taxonomic importance of the characteristics of the numerous longitudinal canals of the excretory system of Cyclophyllidea.] 104 (4), 678–680. [In Russian.]

(791a) Logachev distinguishes and names four layers in the cuticle of the trematode *Hypoderæum conoideum*: (i) *pars decidua*, the external layer is of granular texture enclosing small vacuoles and scaly structures; (ii) *pars lucida* is a shiny structureless layer; (iii) *pars baculosa* is of a palisade structure and (iv) *pars fibrata*, the internal fibrous layer, is of a connective nature. The cuticle of cestodes (*Diphyllobothrium latum*, *Ligula intestinalis* and *Taenia saginata*) forms only the *pars decidua*, *pars lucida* and *pars fibrata*. These three layers are of mesodermal origin while the *pars baculosa* is of ectodermal origin. G.I.P.

(791b) Spasski holds that *Rajotaenia gerbilli* belongs to Catenotaeniidae and not to Anoplocephalidae and, comparing the description of its anatomy with that of species of *Catenotaenia*, deduces that a weakly developed and therefore easily overlooked cirrus bursa is present, that the germovitellarium is in fact the vitelline gland while a separate ovary has been obscured by the uterus, and that the eggs lack a pyriform apparatus. Consequently he makes *Rajotaenia* a synonym of *Skrjabinotaenia* and *S. gerbilli* a new combination. G.I.P.

(791c) The influence of chemicals on the migration of nematode larvae was tested by placing four to ten larvae in a drop of 2% to 4% gelatin (stained with Congo red) and surrounding it by a ring of gelatin containing a chemical. In pure gelatin controls, larvae tend to pass into the ring and, in the case of ascarids, into the peripheral scum. With *Rhabditella* sp. larvae, chemotaxis was positive to a solution from pig faeces but negative to various inorganic compounds. Although *Toxocara canis* larvae did not exhibit negative chemotaxis, they died after entering 8.5% sodium chloride, isotonic copper sulphate and 1% sodium hydroxide. With isotonic calcium chloride the number of larvae which traversed the ring was the same as in the controls, and with isotonic magnesium chloride, was higher than in the controls. These results confirm that amphids as chemoreceptors are better developed in rhabditids than in ascarids. It is concluded that ascarid larvae bore into the intestinal wall of a host to escape adverse conditions in the intestine, but that chemical substances do considerably influence the migration of larvae with sufficiently well developed amphids. G.I.P.

(791d) When the cuticle of plerocercoids of *Ligula intestinalis* is damaged the subcuticular cells under the injury become rounded amoebocytes which accumulate in the parenchymatous layer into cuticle-forming islands. The subcuticular layer in cestodes is not a sunken epithelium but a type of connective (mesodermal) tissue. G.I.P.

(791e) In sperm whales, larvae of *Phyllobothrium delphini* congregate 2 to 5 cm. deep in the skin in the dermal fat layer, where the collagen fibre bundles are less thick, and are absent from the very compact fibrous layers. The larvae are particularly concentrated at the dorsal fin and in females around the genital pore, while in males they are more frequent on the dorsal than the ventral side of the body. Generally females are the more heavily infected. No larvae were found around the pectoral and tail fins and only occasionally on the head. G.I.P.

(791f) *Eurycephalus dogieli* n.g., n.sp. is figured and described from one specimen found in the intestine of *Botaurus stellaris* in the Maritime Territory. The body of this large echinostomatid is dilated between the head and the ventral sucker, the well developed adoral disc has only two groups of spines on the ventral lobes, the vitelline zones stretch along the sides from the ventral sucker to the tail, the uterus is well developed and the testes lie one behind the other in the mid-line. The new genus is placed in Chaunocephalinae and differs from *Chaunocephalus*, in which the vitellaria spread over the dilated portion of the body and the testes lie on one level or diagonally, and from *Balfouria*, in which the vitellaria do not reach below the dilatation which is in the middle of the body and the greater part of the uterus lies anteriorly to the ventral sucker. G.I.P.

(791g) Spasski traces the origin of the presence of numerous longitudinal excretory

vessels in Cyclophyllidea from the fundamental system of two dorsal and two ventral longitudinal vessels with a bladder in the terminal segment, through the stage (in larger cestodes) where the bladder was lost with the first mature segment and the circulation in the dorsal vessel was reversed, to the formation of anastomoses in each segment and in the holdfast between the ventral and sometimes the dorsal vessels. In a number of cases there then developed additional longitudinal vessels which opened into the transverse canals of the ventral vessels. The presence of numerous longitudinal canals when found in members of phylogenetically distinct groups, e.g. Linstowiidae, Anoplocephalidae and Hymenolepididae, represents independent development and is not taxonomically important, but their presence in related species within such a group supports the common origin of the species, e.g. *Anoplocephala magna*, *A. manubriata* and *A. gigantea*.

G.I.P.

792—Egyptian Agricultural Review.

- *a. ABOUL-FETOUH, G., 1955.—[Anguille des racines des pommes de terre et son traitement Grande-Bretagne.] 33, 313-318. [In Arabic: French summary p. 415.]

793—Experimental Report of National Institute of Animal Health, Tokyo.

- a. SASAKI, N., SATO, M. & SANO, K., 1955.—[Studies on skin microfilariasis in horses. III. Distribution and seasonal variation in number of microfilariae in the skin, and its relation to the parasitism of *Onchocerca cervicalis*.] No. 30, pp. 125-137. [In Japanese: English summary pp. 136-137.]

(793a) In horses with Kasen the number of microfilariae in the skin and the severity of disease were greatest in summer and least in winter. Microfilariae were found on all parts of the body, chiefly in the skin of the neck, fore-legs and abdomen and were present in the corium of all the affected horses. Associated with the disease Sasaki *et al.* observed growing epidermis, hyperaemia and diffuse infiltration of eosinophils and round cells. Twenty-three horses with microfilariae in the skin also had *Onchocerca cervicalis* in the nuchal ligament while two horses had *O. cervicalis* in the nuchal ligament but evidently no microfilariae in the skin. From this study and from the amelioration of the symptoms of Kasen which follows the administration of anti-filarial drugs, the authors conclude that this disease is caused by *O. cervicalis* infection.

M.MCK.

794—Farmakologiya i Toksikologiya. Moscow.

- *a. ZINCHENKO, T. V., MINDLIN, M. Z. & PROKOPOVICH, N. N., 1955.—[Anthelmintic properties of *Cucumis melo* seeds.] 18 (5), 41-43. [In Russian.]

795—Feldsher i Akusherka. Moscow.

- *a. KONYASHKIN, N. T., 1955.—[Our experience in treating ascariasis with oxygen.] Year 1955, No. 12, pp. 37-38. [In Russian.]

796—Feuilles Agricoles. Alexandria.

- *a. BAZÁN DE SEGURA, C. & AGUILAR F., P., 1955.—“Nématodes et maladies des racines du cotonnier au Pérou.” 13, 260-262.

797—Fitófilo. Mexico.

- *a. ALCOCER GOMEZ, L., 1955.—“Enfermedad de la palma de coco conocida como ‘anillo rojo’.” 8 (11), 8-11.

798—Folia Clinica et Biologica. São Paulo.

- a. WAIB, S. ET AL., 1955.—“Inquérito sobre a incidência da enterobiose em escolares de Ribeirão Preto.” 23 (1/3), 63-80.
- b. MAGALHÃES, A. E. A., RÉGO, S. F. M. & SIGUEIRA, A. F., 1955.—“Resultados de um enquérito sobre enteroparasitoses em uma fazenda do município de Ribeirão Preto.” 23 (4/6), 133-148. [English summary p. 145.]

799—Folia Medica. Naples.

*a. CATALANO, G., 1955.—“L'idiatidosi come malattia professionale.” **38** (12), 1397-1406.

800—G.E.N. Sociedad Venezolana de Gastroenterología, Endocrinología y Nutrición, Caracas.

- a. ITURBE, J., 1955.—“Historia de la schistosomiasis mansoni en Venezuela.” **10**, 33-59.
- b. CURIEL, D., GUZMÁN, P. & OCHOA, E. DE, 1955.—“La bilharziosis en Venezuela desde el punto de vista sanitario. Primera parte.” **10**, 61-117.
- c. JOVE, J. A. & MARSZEWSKI, P., 1955.—“La bilharziosis en Venezuela desde el punto de vista sanitario. Segunda parte.” **10**, 119-194.
- d. PIFANO C., F., 1955.—“Biología del *Schistosoma mansoni*—schistosomiasis experimental.” **10**, 195-221.
- e. RUIZ RODRÍGUEZ, J. M., 1955.—“Manifestaciones iniciales de invasión. Manifestaciones generales de la schistosomiasis mansoni.” **10**, 223-245.
- f. ZERPA MORALES, J. R., 1955.—“La forma hepata intestinal de la bilharziosis mansoni.” **10**, 247-255.
- g. BÉNAÍM PINTO, H., 1955.—“La forma hepato-esplénica de la schistosomiasis mansoni.” **10**, 257-346. [English summary pp. 331-339.]
- h. CÁNDIA C., E. & LOUIS, C. E., 1955.—“Endoscopia en la bilharziosis.” **10**, 347-362.
- i. LECHÍN C., F., 1955.—“Radiología digestiva en la bilharziosis.” **10**, 363-372.
- j. GÓMEZ, O. L., 1955.—“El cuadro hemático en la schistosomiasis mansoni.” **10**, 373-397. [English summary p. 396.]
- k. GIL YEPEZ, C. & SANABRIA, A., 1955.—“Aspectos cardiovasculares de la bilharziosis mansoni en Venezuela.” **10**, 399-410.
- l. BARNOLA, J., 1955.—“Schistosomiasis mansoni—coprología.” **10**, 411-419.
- m. PIFANO, F. & PEDRIQUE, M. R., 1955.—“El diagnóstico de la schistosomiasis mansoni por pruebas biológicas. Intradermorreacción.” **10**, 421-434.
- n. PEDRIQUE, M. R. & PIFANO C., F., 1955.—“Reacción de desviación del complemento según Fairley. Reacción de Vogel y Minning.” **10**, 435-442.
- o. PARPARCÉN, J. V., 1955.—“Crítica y evaluación de los métodos usados para el diagnóstico de la bilharziosis mansoni.” **10**, 443-496.
- p. JAFFÉ, R., 1955.—“Las lesiones hepáticas en la bilharziosis mansoni.” **10**, 497-503.
- q. O'DALY, J. A., 1955.—“Bilharziosis mansoni. Lesiones del intestino delgado.” **10**, 505-508.
- r. O'DALY, J. A., 1955.—“Bilharziosis mansoni. Lesiones del bazo.” **10**, 509-517.
- s. CELLI, B. B., 1955.—“Lesiones anatomicopatológicas de la bilharziosis en colon y recto.” **10**, 519-524.
- t. POTENZA, L., 1955.—“Localizaciones aberrantes del *Schistosoma mansoni*.” **10**, 525-530.
- u. PEDRIQUE, M. R. & GERULEWICS, E., 1955.—“Tratamiento de la bilharziosis.” **10**, 531-550.
- v. CORONIL, F. R., 1955.—“Esplenectomía como tratamiento quirúrgico del síndrome de Banti bilharziano.” **10**, 557-566.
- w. BAQUERO GONZÁLEZ, R., 1955.—“Anastomosis venosas en la hipertensión portal de los síndromes hepáticos de origen bilharziano.” **10**, 567-602.
- x. PÉREZ CARREÑO, M. & DIEZ, A., 1955.—“Las neoformaciones bilharzianas del intestino grueso. (Los bilharziomas).” **10**, 603-612.

(80ob) 731 deaths from schistosomiasis in Venezuela from 1940 to 1954 are analysed statistically. Between 1950 and 1954, 98% of the deaths from schistosomiasis occurred in Caracas and the States of Miranda, Carabobo and Aragua.

M.MCK.

(80oc) Examinations of faeces collected from house to house in Venezuela from 1947 to 1955 showed infections with *Schistosoma mansoni* in 24·8% of 8,418 persons in Aragua State, 9·9% of 4,188 in Carabobo State and 10·3% of 5,955 in Miranda State. Jove & Marszewski note the distribution of *Australorbis glabratus* in Venezuela; they describe the progress and setbacks encountered in the institution of prophylactic measures and tabulate information on the construction of aqueducts and other projects since the late nineteen forties. The australorbid population has been reduced over large areas. Running waters are treated with copper sulphate solution, usually at a concentration of 100 p.p.m., to which has been added a little sulphuric acid. To prevent the precipitation of copper as carbonate this is delivered as a mixture with a 20 p.p.m. tartaric acid solution at the rate of one litre of each solution per minute. Sodium pentachlorophenate proved cheap and efficient but copper pentachlorophenate seemed to be the most promising molluscicide as the snails did not try

to escape from treated waters. This compound was applied in the form of sodium pentachlorophenate and the copper sulphate complex (referred to above) each at a concentration of 5 p.p.m. The Imhoff tank, if operated correctly, was found to remove 95% of eggs of *S. mansoni* from sewage effluent and its construction in endemic zones is recommended. The paper concludes with demographic details illustrating the marked fall in schistosome incidence in Venezuela during the last two decades.

M.MCK.

(800d) Pifano observed the process of egg-laying by *Schistosoma mansoni* in the mesentery of live guinea-pigs. The females, which were carried to the small vessels and left there by the males, attached themselves by the acetabulum to the vessel wall. Waves of contraction passed along the body postero-anteriorly and the first egg moved forward and was laid about ten minutes after the attachment of the female.

M.MCK.

(800e) Ruiz Rodríguez illustrates with several case reports the clinical and haematological manifestations of *Schistosoma mansoni* infections during the prepatent period and recalls the beneficial effects which have been obtained at this early stage by treatment with tartar emetic or fouadin.

M.MCK.

(800f) The symptoms of 100 cases of schistosomiasis mansoni from Venezuela are classified and the frequencies of the symptoms are given. Zerpa Morales suspects that progressive liver cirrhosis occurs only in cases of massive infections or nutritional deficiencies.

M.MCK.

(800g) Benáim Pinto describes the splenic symptoms and changes manifested in schistosomiasis basing his study on personal observations and on 90 Venezuelan papers. He gained the impression that patients with an important deep collateral circulation, who do not develop ascites, have a greater tendency to bleeding and splenomegaly than those who have insufficient deep circulation and develop ascites.

M.MCK.

(800h) The lesions observed by rectosigmoidoscopy in 740 Venezuelan cases of schistosomiasis mansoni, and the frequencies of the lesions, are tabulated.

M.MCK.

(800i) From the records of 900 schistosome cases examined in Venezuela by X-ray, Lechin reviews the usefulness of this technique in detecting internal manifestations of schistosomiasis. 22 radiographs are reproduced.

M.MCK.

(800j) From Venezuelan literature and his own clinical observations Gómez describes the blood picture associated with schistosomiasis mansoni. In the invasive phase the picture includes moderate anaemia, leucocyte counts of 10,000 to 20,000 and eosinophilia (up to 70%) which decreases with time. Established infections are characterized by anaemia of non-haemolytic form, leucopenia, alterations in the maturation of neutrophil and eosinophil granulocytes and, often, eosinophilia. This study has suggested to Gómez that the leucocyte counts tend to be higher than normal, and intense leucopenia to be less common, in patients without marked splenomegaly.

M.MCK.

(800k) The chronic diffuse myocarditis commonly observed in Venezuela is coming to be recognized as resulting from Chagas disease rather than from schistosomiasis.

M.MCK.

(800l) When examining faeces from cases of suspected schistosomiasis mansoni it is best to retain the faeces as far as possible in the form in which they are evacuated and to sample the outside of the stool. Direct examination is usually sufficient. Although Stoll's concentration technique is the one almost exclusively used in laboratories in Venezuela, Cortez has shown it to be a poor method for detecting schistosome infection. The Telemann-De Rivas method or the more recent ones involving detergents are more reliable.

M.MCK.

(800m) The intradermal reaction with "Bilharzina" (antigen from adult schistosomes) was positive in 94% of 497 cases of *Schistosoma mansoni* infection whereas Fairley's complement fixation reaction was positive in only 74%. In 400 infected persons the intradermal test was positive in 95.5% and Vogel's cercarial reaction was positive in 81%. Fifty cases

strongly suspected of schistosomiasis were selected and 34 were positive to the intradermal test, 24 to rectal biopsy and 11 were seen to be infected after three successive faecal examinations. The combined use of the intradermal test and Vogel's reaction is recommended for diagnosing schistosomiasis.

M.MCK.

(8oon) Pedrique & Pifano review the efficacy which various workers have reported for Fairley's complement fixation reaction and the cercarial reaction of Vogel & Minning in the diagnosis of schistosome infections. In the authors' experience the reaction of Vogel & Minning was negative in a high percentage [no figures are given] of over 200 people who had been treated for schistosomiasis and they conclude that it is useful both in the diagnosis of the disease and as a criterion of cure.

M.MCK.

(800o) Parparcén reviews the efficacy of the different techniques used for the diagnosis of *Schistosoma mansoni* infection and concludes that the three most usual methods, and their percentage efficacy, are the intradermal test (95%), the various kinds of faecal examinations (80%–91%) and rectal biopsy (50%). Severe haemorrhages have occurred in six out of about a thousand cases subjected to rectal biopsy in hospitals in Caracas and at his private clinic. He does not therefore recommend it as a routine method of diagnosis unless competent medical staff is available.

M.MCK.

(8oop) Jaffé describes and illustrates with photomicrographs the hepatic lesions associated with schistosomiasis mansoni.

M.MCK.

(800q) The lesions produced in the small intestine by *Schistosoma mansoni* infection are described. In two cases O'Daly observed multiplication of satellite cells and pigmentation of the neurons in the ganglia of the intestinal muscle layer. He considers that lesions of the nerve ganglia have not been sufficiently studied.

M.MCK.

(8oor) O'Daly describes the gross appearance and lesions of the spleen associated with schistosomiasis mansoni and lists, for comparison, the lesions observed in schistosomiasis and Banti's disease.

M.MCK.

(8oot) A second case of transverse myelitis of schistosome origin is recorded for Venezuela. The other aberrant locations of *Schistosoma mansoni* eggs reported from that country have been confined to the urino-genital system.

M.MCK.

(8oou) The treatment of several hundred patients with *Schistosoma mansoni* infections confirmed that 70%–90% were apparently cured after intensive treatment with sodium antimony tartrate. This drug was injected in atropine solution at dosages of 6 cg. and 8 cg. on the first day, 10 cg. and 12 cg. on the second day, and 12 cg. and 12 cg. on the third day; or 6 cg., 8 cg. and 10 cg. on the first day and three doses of 12 cg. on the second day. Treatment with fouadin caused two deaths and a serious accident attributed to anaphylactic shock. Trial treatments with miracil-D on the population of a small infected town showed that for persons of 18 years of age or more, or 60 kg. in body-weight and over, the best dosages were three tablets (of 0.2 gm. each) on each of the first and second days, two or three tablets on the third day, three tablets on the fourth day and two tablets on the fifth to ninth days. For younger persons, or those of lighter weight, the dosages and treatment periods were correspondingly smaller. Miracil-D was much better tolerated by children than by adults.

M.MCK.

(8ooov) Thirteen of the 78 patients who have undergone splenectomy for the treatment of schistosomal splenomegaly at the Vargas Hospital in Caracas died as a result of the operation.

M.MCK.

(8ooow) Baquero González gives five brief case reports of splenectomy or porto-caval or spleno-renal anastomosis in patients with portal hypertension of schistosome origin.

M.MCK.

(8oox) The abnormal growths of schistosome origin in the lower intestine of three patients (polyps, a mammelonated bleeding tumour and "tumoral neoformations"), and the surgical treatments followed, are described.

M.MCK.

801—Gaceta Médica de Caracas.

- a. BRICEÑO IRAGORRY, L., UGUETO, C. & DELGADO, V., 1955.—“Hemoparásitos y trichinas de las ratas salvajes en Caracas.” **62** (1/2), 37-38.
- b. HERNÁNDEZ PIERETTI, O., 1955.—“Nuevo foco filariano comprobado en Venezuela entre indios Uiniquinas y Guarunos del Territorio Federal Delta Amacuro. Nuevos casos de infestación por *Mansonella ozzardi*, y primeros casos de acanthocheilonemiasis señalados en Venezuela.” **62** (1/2), 39-51.
- c. SCORZA, J. V., DAGERT BOYER, C. & ITURRIZA AROCHA, L., 1955.—“Observaciones sobre el hallazgo de *Foleyella vellardi* Travassos 1929, en *Bufo marinus* L. de Venezuela.” **62** (3/4), 145-153. [English summary p. 153.]

(801a) Examination of the diaphragmatic muscles of 485 specimens of *Rattus norvegicus* captured in various regions of Caracas failed to reveal *Trichinella spiralis*. The authors conclude that the sporadic cases of trichinosis which occur in the city are due to consumption of imported infected foodstuffs and stress that measures should be taken to avoid the creation of autochthonous foci of infection.

J.M.W.

(801b) Pieretti describes a new focus of filarial infection in the Amacuro Delta region of Venezuela. Microfilariae of *Mansonella ozzardi* and *Acanthocheilonema persans* were found in the peripheral blood of 32 out of 100 Indians living in this area. In one case both species were present in the blood of the same individual. This is believed to be the first record of *Acanthocheilonema persans* from Venezuela. Many of the Indians were also infected with *Ascaris*, *Necator* and *Trichocephalus*.

J.M.W.

(801c) Scorza *et al.* studied adult females and microfilariae of *Foleyella* sp. found in the body-cavity of *Bufo marinus*. They concluded that this species was *F. vellardi* Travassos 1929, and describe the cuticular ornamentation of the cephalic region by which it is differentiated from *Ochoterenella digiticauda* Caballero, 1944 and *Filaria* sp. of Leger, 1918.

J.M.W.

802—Gartner-Tidende.

- *a. LINDHARDT, K., 1955.—[Can nematode attacks become a danger to the onion culture.] **71**, 341-342. [In Swedish.]

803—Gastroenterology. Baltimore.

- a. DIMMETTE, R. M., 1955.—“Liver biopsy in clinical schistosomiasis. Comparison of wedge and needle types.” **29** (2), 219-234.
- b. RODRÍGUEZ, H. F., GARCIA-PALMIERI, M. R., RIVERA, J. V. & RODRÍGUEZ-MOLINA, R., 1955.—“A comparative study of portal and bilharzial cirrhosis.” **29** (2), 235-246.

(803b) The authors have made an extensive study of 112 cases of cirrhosis of the liver, including 69 cases of portal cirrhosis, 22 cases of bilharzial cirrhosis, 11 patients with schistosomiasis mansoni and alcoholism, seven of post-hepatitic cirrhosis, two of biliary cirrhosis and one of transfusion haemosiderosis. The clinical picture in the patients with *Schistosoma mansoni* infections differed in many respects from the usual one in liver cirrhosis of other aetiologies; bilharzial cirrhosis occurred in younger patients, portal hypertension and hypersplenism were more frequent and anaemia, where present, was attributable to bleeding oesophageal varices or hypersplenism. The results of the tests and observations are tabulated.

S.W.

804—Gazeta Médica Portuguesa.

- a. AGUIAR, F. A. DE, 1955.—“Um caso de triquinose diagnosticado na autópsia.” **8** (2), 119-125. [English, French & German summaries p. 125.]

805—Gazette Médicale de France.

- *a. DESCHIENS, R., 1955.—“Les nouvelles médications antihelminthiques intéressantes la gastro-entérologie.” **62** (21), 1507-1516.

806—Glas Srpske Akademije Nauka. Odeljenje Medicinskih Nauka.

- *a SIMITCH, T., RICHTER, B. & LEPEŠ, T., 1955.—“Prilog poznavanju crevnih parazita čoveku u našoj zemlji. VIII. Crevni paraziti kod školske dece u Slovenačkoj.” [Intestinal parasites in Yugoslavia. VIII. Intestinal parasites in schoolchildren in Slovenia.] **215** (9), 79-91.

807—Glasnik Higienskog Instituta. Belgrade.

- a. SRETOENOVIC, B., VELIČKOVIĆ, C. & POPOVIĆ, D., 1955.—[An epidemic of trichinosis in the village Milakovac, Region Žiča, Serbia, in 1954.] **4** (1/2), 33-40. [In Serbian: English summary p. 40.]

808—Glasnik Prirodnachkog Museja Srpske Zemle. Serija B. Bioloshke Nauke.

- a. ŠINŽAR, D., 1955.—“Prilog poznavanju entoparazita pastrmke *Salmo trutta* L. (Prethodno saoř-štenje.)” **7** (4), 223-229. [German summary p. 226.]

(808a) From an examination of *Salmo trutta* in Yugoslavia, Šinžar records the presence of *Azygia lucii* in the river Tara, *Neoechinorhynchus rutili* in Bohinj Lake and Savice (this infection was also found in one *S. irideus*) and, in the river Una, an acanthocephalan which he provisionally names *Dentitruncus truttae* n.g., n.sp.? The body of this rhadinorhynchid was cylindroid, posteriorly constricted and anteriorly armed by 29 to 30 longitudinal rows of spines. The females measured 5·657 mm. in length, their proboscis was 0·788 mm. long, bearing 19 to 20 longitudinal rows of 15 equal hooks in quincuncial arrangement and the body cavity contained numerous elongated eggs (larvae). The lemnisci were longer than the proboscis sheath. The males measured 4·627 mm. in length, their proboscis was 0·513 mm. long and behind the rounded testes were eight cement glands.

G.I.P.

809—Hannoversche Land- und Forstwirtschaftliche Zeitung.

- *a. SCHEIBE, K., 1955.—“Nematodengefahr im Hackfruchtbau.” **108**, 71-72.

810—Hastane. Istanbul.

- a. SALOR, H., 1955.—“Kendi kendine iyi olmuş bir akciğer kist hydatide vakası.” [Spontaneous recovery of a case of echinococcic cyst of the lung.] **9** (8), 268-270. [English, French & German summaries p. 270.]
 b. SARACOĞLU, K., 1955.—“Akciğer süpürasyonunu taklit eden kist hydatik vak’alari.” [Pulmonary echinococcic cyst showing symptoms of pulmonary suppuration.] **9** (10), 328-335. [English, French & German summaries p. 335.]
 c. YÜCEL, F. A., 1955.—“İki yaşında bir çocukta obstruction, invagination ve ölüme sebebiyet veren bir ascariasis intestinalis vak’ası.” [Fatal case of intestinal obstruction and invagination in a child of two years caused by ascariasis.] **9** (12), 413-419. [English, French & German summaries pp. 418-419.]

811—Hirosaki Medical Journal.

- a. SATO, K., 1955.—[Studies on eggs of *Ascaris lumbricoides*, experimentally inserted in the gallbladder and various tissues.] **6** (2), 91-103. [In Japanese: English summary pp. *28-*29.]
 b. ASAKURA, S. & SATO, G., 1955.—[Supplemental study on the histological structure of the cuticle of roundworm. (Report 1.)] **6** (2), 130-136. [In Japanese: English summary p. *35.]
 c. ASAKURA, S. & SATO, G., 1955.—[Supplemental study on the histological structure of the cuticle of roundworm. (Report 2.)] **6** (2), 137-144. [In Japanese: English summary pp. *36-*37.]
 d. SATO, G., 1955.—[Process of decomposition of the dead bodies of ascarides in the bile duct: experimental formation of so-called roundworm gall-stones.] **6** (3), 194-212. [In Japanese: English summary pp. *46-*47.]
 e. YASUDA, M., 1955.—[Studies on the parasite elements in the gall-stones: especially the method for detecting them.] **6** (4), 391-403. [In Japanese: English summary pp. *90-*91.]

(811a) Sato introduced *Ascaris* eggs into the bile-duct, pancreatic duct, walls of the gall-bladder, pancreatic tissue, and walls of the stomach and duodenum of dogs. Pressure of the surrounding tissue caused some change in size and shape. Eggs in the bile were observed

to penetrate into the wall of the gall-bladder. Acute and chronic pancreatitis were induced by blockage of the pancreatic ducts with the eggs. In the tissues of the pancreas, stomach wall, duodenum wall and gall-bladder wall the introduction of *Ascaris* eggs provoked a strong tissue reaction.

(811b) Asakura & Sato have examined the histology of *Ascaris* cuticle from the point of view of its importance as a gall-stone kernel. They conclude that there are, broadly, four layers: the cortical (outermost), the homogeneous, the fibrous and the matrix. The cortical and fibrous layers are the most durable and probably the most important in gall-stone formation.

S.W.

(811c) When dead pig *Ascaris* were inserted into the gall-bladder of dogs their cuticles decomposed. Asakura & Sato made careful observations of the processes involved and conclude that the four layers of the cuticle are made up as follows: (i) cortical layer containing a coating membrane, a lenticular zone and a cementing zone, (ii) homogeneous layer, (iii) fibrous comprised of external, middle and internal layers, and (iv) matrix layer. The lenticular and cementing zones of the cortical layer present the characteristics of the cuticle in gall-stones formed by deposition on ascarid bodies.

S.W.

(811d) Sato introduced fresh dead bodies of pig *Ascaris* into the gall-bladder of a dog. Whereas complete decomposition of the dead worms took place in ten days at 37°C. in physiological saline, the process took over a month within the gall-bladder, the laminated cuticle being the last organ to disintegrate. The decomposing bodies of the worms became encrusted at first with calcium carbonate, but after four to six weeks this began to disappear and impregnation with calcium bilirubinate took place, which eventually replaced the calcium carbonate entirely. Thus ten to twelve months after their introduction into the gall-bladder the dead ascarids had been transformed into gall-stones.

J.M.W.

(811e) Yasuda describes a technique for dissolving gall-stones, leaving behind any parasitic material. Examination of bilirubin-chalk gall-stones from 64 cases showed *Ascaris* cuticle in eight cases, *Ascaris* cuticle and eggs in three cases, *Ascaris* eggs alone in 20 cases and with Acarina in one, *Clonorchis* eggs in one case and unidentified eggs in one. In another 50 cases parasitic material (*Ascaris* eggs, cuticle or both) was found in 28. No parasitic material was found in 14 cases of cholesterol stone.

S.W.

812—Horticultural News. New Jersey State Horticultural Society.

- *a. HUTCHINSON, M. T. & REED, J. P., 1955.—“A look below ground at nematodes.” **36**, 2905, 2907, 2922, 2926.

813—Hospital. Rio de Janeiro.

- *a. BOGLIOLO, L., 1955.—“Segunda contribuição ao conhecimento do quadro anatômico do figado na esquistosomose mansônica hépato-esplênica.” **47**, 507.

814—Igiene e Sanità Pubblica.

- a. BEI, G. DE, 1955.—“Condizioni igienico-sanitarie nei comuni del Delta Padano. Nota I. Diffusione delle parassitosi intestinali nella popolazione infantile di Chioggia e Sottomarina.” **11** (9/10), 495-501. [English, French & German summaries pp. 495-496.]

(814a) Examination of 235 schoolchildren in Chioggia and 191 in Sottomarina showed that the incidence of helminthiasis was 31.48% in the former municipality and 91.62% in the latter. The difference in incidence in the two places was attributable to the very bad hygienic conditions in Sottomarina. The principal frequency-rates were: in Chioggia, trichuriasis 20.53% in boys, 15.44% in girls; ascariasis 13.39% in boys, 21.95% in girls; enterobiasis 9.82% in boys, 16.26% in girls; hymenolepiasis nana 0.89% in boys only. In Sottomarina, trichuriasis 59.59% in boys, 52.71% in girls; ascariasis 38.38% in boys, 44.56% in girls; enterobiasis 36.36% in boys, 52.17% in girls; hymenolepiasis nana 1.1% in boys, 2.17% in girls.

J.M.W.

815—Istanbul Üniversitesi Tıp Fakültesi Mecmuası.

- a. EREL, M. & EĞRİBOZLU, A., 1955.—“Helmint yumurtalarinin aranması hakkında.” [Detection of helminth eggs.] **18** (1), 8-16. [English summary p. 16.]

816—Izvestiya Akademii Nauk Armyanskoi SSR. Biologicheskie i Selskokhozyaistvennie Nauki.

- a. SHULTS, R. S. & DAVTYAN, E. A., 1955.—[The problem of the host-parasite specificity.] **8** (5), 89-92. [In Russian: Armenian summary pp. 91-92.]

817—Izvestiya Akademii Nauk SSSR. Seriya Biologicheskaya.

- a. PAVLOVSKI, E. N., 1955.—[Problem of parasitocoenosis, inter- and intra-specific relationships within the host. Clinical significance in infectious diseases.] Year 1955, No. 3, pp. 25-32. [In Russian.]

(817a) Pavlovski follows a short general discussion on the development of parasitological studies in Russia by one on the inter-species and intra-species relationships within a host, using as illustrations his own and other experimental data from literature, particularly that on *Diphyllobothrium latum* in dog and on helminths as part of the intestinal fauna in man. G.I.P.

818—Jahrbuch des Oberösterreichischen Musealvereines.

- a. KRITSCHER, E., 1955.—“Beitrag zur Kenntnis der Fischparasiten der Trattnach und des Innbachs bei Bad Schallerbach (O.-Ö.).” **100**, 373-389.

(818a) The parasite fauna of 139 fish (11 species) from the two small rivers, Trattnach and Innbach, near Schallerbach included five species of trematodes, three of cestodes, four of nematodes, four of acanthocephalans (which were the most frequent) and some leeches. *Neodactylus malleus* is recorded for the first time for Austria. A short diagnosis, geographical distribution, hosts and details of this examination are set down for each of the parasites, which are also listed under hosts. G.I.P.

819—Japanese Journal of the Nation's Health.

- a. KATAYAMA, Y., 1955.—[Sanitary treatment of human excreta by heating process. 16. Effect of the treatment applied to a farm-village (Part 1).] **24** (1), 1-12. [In Japanese: English summary p. 1.]

(819a) To control parasitic infections, the night-soil collected into 20 to 200-litre drums was heated to 60°C. before use as fertilizer. After this method had been put into practice for three years in a village in the Shiga Prefecture there was a striking decline in the incidence of hookworm and *Ascaris* infections and in the counts of embryonated *Ascaris* ova in farm soil, as compared with neighbouring villages. G.I.P.

820—Jornadas Nacionales de Puericultura y Pediatría. Valencia.

- *a. BALLESTEROS BERMUDEZ, J. & BURGOS COURLAENDER, C., 1955.—“Tricocéfalos como causa de diarrea crónica en los niños. Tratamiento de esta con enemas de hexylresorcinol.” **2**, 739-757. [English summary.]

821—Jornal de Pediatria. Rio de Janeiro.

- a. RODRIGUES, Y. T., ROCHA E SILVA, R., GONDIM, A. M. & TELLES, W., 1955.—“O problema da oxiurose na infância. I. Incidência em crianças do Distrito Federal.” **20** (1), 24-36. [English summary pp. 33-34.]
 b. ANDRADE FILHO, O. DE & RODRIGUES, A., 1955.—“Empiema e abcesso hepático por *Ascaris*.” **20** (6), 326-332.

822—Jornal da Sociedade das Ciências Médicas de Lisboa.

- *a. GAMA, M. M. DA, 1955.—“Anemia por ancilostomiae. Notas sobre um caso clínico”. **119** (3), 128-136.
- *b. GAMA, M. M. DA, 1955.—“Fasciolase hepática humana. Notas sobre um caso clínico.” **119** (7), 395-397.

823—Journal of Animal Ecology.

- a. MANN, K. H., 1955.—“The ecology of the British freshwater leeches.” **24** (1), 98-119.

(823a) This is a study of the influence of the physical and chemical factors of the environment on the distribution of twelve species of fresh-water leeches in Berkshire and the Lake District. The total alkalinity gave the most useful correlation between the nature of the water and the leech fauna. *Hirudo medicinalis* is reported from three new locations situated in the Lake District. R.T.L.

824—Journal of the Chemical Society. London.

- a. MACKIE, A. & MISRA, A. L., 1955.—“The preparation of some heterocyclic sulphur compounds as possible anthelmintics.” Year 1955, pp. 1030-1031.
- b. MACKIE, A. & MISRA, A. L., 1955.—“Preparation of phenothiazine derivatives as possible anthelmintics. Part II.” Year 1955, pp. 1281-1283.

825—Journal of the Faculty of Medicine of Baghdad, Iraq.

- a. RASSAM, M. B., 1955.—“A case of multiple hydatid cysts of the brain and viscera.” **19** (5/6), 127-130.

826—Journal of the Formosan Medical Association.

- a. WU, Y. T. & HUANG, Y. S., 1955.—“Filariasis among Ta-Chen evacuees.” **54** (8), 247-253. [Chinese summary p.254.]

(826a) The authors describe a filariasis survey carried out in April 1955 among evacuees from the Tachen islands. Of the total, numbering 10,008, blood films from 8,848 persons were examined; 788 were positive for *Wuchereria malayi*, 38 for *W. bancrofti* and five showed mixed infections. There appeared to be no difference in the incidence in men and women but the infection rate increased with age. Only 162 were investigated clinically and of these 14 had elephantiasis of the legs; the incidence of filarial disease was higher in men than in women. Possible control measures are discussed. S.W.

827—Journal of the Louisiana State Medical Society.

- a. SAPPENFIELD, R. W., SWARTZWELDER, C., MILLER, J. H. & MARTINEZ, F.; 1955.—“Comparison of two regimes for the treatment of enterobiasis with piperazine citrate.” **107** (7), 276-278.

(827a) Using piperazine citrate at a total daily dosage of 30 mg. to 35 mg. of the hexahydrate equivalent per lb. body-weight (maximum 2.0 gm., divided into two equal doses), the authors compared the efficacy of two treatment schedules against enterobiasis. In the first, treatment was given for 14 consecutive days and in the second for two seven-day periods with seven days without medication between them. Both were very effective, 30 out of 33 patients in the first group and 26 out of 27 in the second being completely cured, but the 14-day treatment had a number of practical advantages. S.W.

828—Journal of Mammalogy.

- a. MARLOW, B. J. G., 1955.—“A commensal nematode in the African bush pig.” **36** (1), 147.

(828a) Marlow records the presence of numerous *Rhabditis* sp. in a buccal pouch in an adult male *Potamochoerus porcus nyassae*, shot in Northern Rhodesia. No lesions were observed in the pouch and it is concluded that the nematodes feed on the wood and bark debris which it contained. S.W.

829—Journal of the National Cancer Institute.

- a. SHIMKIN, M. B., MUSTACCHI, P. O., CRAM, E. B. & WRIGHT, W. H., 1955.—“Lack of carcinogenicity of lyophilized *Schistosoma* in mice.” **16** (2), 471-474.

830—Journal of Neurosurgery. Springfield, Illinois.

- a. RESNIKOFF, S. S., 1955.—“External hydrocephalus caused by cysticercosis treated by subarachnoid-peritoneal anastomosis utilizing the fallopian tube.” **12** (5), 520-522.

831—Journal of Pediatrics.

- a. BUMBALO, T. S. & GUSTINA, F. J., 1955.—“The treatment of pinworm infection (enterobiasis) with gentian violet suspension.” **47** (3), 311-314.

(831a) Bumbalo & Gustina tested a new suspension of gentian violet, in which the phenolphthalein salt of gentian violet was held in an insoluble complex by an inert earth, against enterobiasis in children. This suspension was acceptable and well tolerated and did not cause nausea and vomiting. Of 26 children treated with approximately 9 mg. of gentian violet daily, per year of apparent age, for fourteen consecutive days, 21 were cured. S.W.

832—Journal of Pharmacology and Experimental Therapeutics.

- a. EHRENFORD, F. A., RICHARDS, A. B., ABREU, B. E., BOCKSTAHLER, E. R., WEAVER, L. C. & BUNDE, C. A., 1955.—“Trichuricidal activity of phthalofyne and certain related compounds.” **114** (4), 381-384.

(832a) The authors have studied the anthelmintic efficacy of phthalofyne (3-methyl-1-pentyn-3-yl acid phthalate) against *Trichuris vulpis* in dogs and have found that it is specific, effective and safe in a single oral dose. In acute toxicity studies in dogs the signs observed were emesis, anorexia and somnolence at doses of 450 mg. per kg. body-weight and over, but these persisted for less than 24 hours. The emesis acts as a protective mechanism and the average lethal dose could not be determined. It was without effect on *Toxocara canis*, *Toxascaris leonina*, *Taenia* spp. and *Dipylidium caninum* and had only a slight effect on *Uncinaria stenocephala* and *Ancylostoma caninum*. None of the related substances tested (1-pentyn-3-yl acid phthalate, di-n-butylphthalate, di-ethyl-phthalate, methylparafynol and phthalic anhydride) was effective. S.W.

833—Journal of Pharmacy and Pharmacology. London.

- a. BECKETT, A. H. & JOLLIFFE, G. O., 1955.—“A note on the determination of ascaridole in oil of chenopodium.” **7** (9), 606-607.

834—Journal of the Philippine Medical Association.

- a. ANTONIO, Jr., D., PEÑAS, M. D. & PANTANGCO, E., 1955.—“Renal echinococcosis.” **31** (11), 607-612.

835—Journal of Postgraduate Medicine. Bombay.

- a. VAISHNAV, V. P. & BHENDE, Y. M., 1955.—“Concentration of protozoal cysts and helminthic ova in feces. A comparison of the efficiency of acid-ether and zinc sulfate centrifugal floatation methods.” **1** (3), 212-216.
 b. VAISHNAV, V. P. & BHENDE, Y. M., 1955.—“The incidence of infection by intestinal parasites in the population of a mental hospital.” **1** (3), 217-222.

(835a) Vaishnav & Bhende have compared the efficiency in the detection of helminth ova in faeces of direct smear examination, and the acid-ether and zinc sulphate concentration techniques. They recommend a combination of the direct smear and zinc sulphate methods for routine use. S.W.

836—Journal de Radiologie et d'Électrologie.

- a. THIERRÉE, R. A. & METZGER, M., 1955.—“Pyopneumokyste hydatique du foie.” **36** (5/6), 358-359.
- b. METZGER, M. & THIERRÉE, R. A., 1955.—“Un nouveau cas de cysticercose de découverte radiologique.” **36** (7/8), 552-554.

837—Journal of Tropical Pediatrics. Calcutta.

- a. STRANSKY, E. & REYES, A., 1955.—“Ascariasis in the Tropics. (With considerations on its treatment.)” **1** (3), 174-187.

838—Journal d'Urologie Médicale et Chirurgicale.

- a. GURSEL, A. E., 1955.—“Un cas de kyste hydatique du rein.” **61** (6), 382-385.
- b. PIGANIOL, G., HERVÉ, A. & ROUFFILANGE, F., 1955.—“La bilharziose urinaire. (Réflexions à propos de soixante-dix observations.)” **61** (7/8), 525-542.

839—Journal of the Zoological Society of India.

- a. CHAUHAN, B. S., 1955.—“On the taxonomic position and distribution of the trematode genus, *Isoparorchis* Southwell, 1913.” **7** (1), 87-90.
- b. GANAPATI, P. N. & RAO, K. H., 1955.—“On *Bothriocephalus indicus* sp. nov. (Cestoda) from the gut of the marine fish, *Saurida tumbil* (Bloch).” **7** (2), 177-181.

(839a) Chauhan discusses the systematic position of *Isoparorchis*, which has been placed in a number of different subfamilies and families by various authors, and points out that its known distribution appears to be limited to countries of the Far East and Australia. He tabulates the hosts, location in the hosts and localities from which it has been recorded in India. The life-cycle is still imperfectly known but heavy infections cause considerable damage to and death of the siluroid hosts with consequent economic loss. S.W.

(839b) Ganpati & Rao describe and illustrate *Bothriocephalus indicus* n.sp. from the intestine of *Saurida tumbil*. The scolex is conspicuous with a prominent apical disc and ruffled bothridial margins and is attached in an intestinal pouch which appears to be a special development. There is no neck. The proglottides are craspedote, the uterus has a terminal median spherical sac, the uterine pores lie in a single median row and the uterine eggs are not operculate. S.W.

840—Khirurgiya. Sofia.

- *a. GANCHEV, G. & ATANASOV, A., 1955.—[Echinococcosis of the tibia and of the knee.] **8** (2), 185-187. [In Bulgarian.]
- *b. ANCHEV, N., 1955.—[A case of echinococcosis of the subcutaneous tissue.] **8** (6), 560-561. [In Bulgarian.]
- *c. MIKHAILOV, M., 1955.—[Practical considerations on echinococcosis.] **8** (7), 598-606. [In Bulgarian.]
- *d. KITOV, D., 1955.—[Clinical observations on echinococcosis of the cerebellum.] **8** (9), 840-842. [In Bulgarian.]

841—Kitakanto Medical Journal.

- *a. ODA, T., 1955.—[Studies on the increase of Ascaris ova killing action of excrement by adding protein to it. I. Effects of adding carbohydrate and protein upon Ascaris ova in excrement.] **5**, 65. [In Japanese.]
- *b. ODA, T., 1955.—[Studies on the increase of Ascaris ova killing action of excrement by adding protein to it. II. Relation between Ascaris ova killing action of protein added excrement and amino acid.] **5**, 69. [In Japanese.]
- *c. KOBAYASHI, A., 1955.—[On the modes of natural Ascaris infection in Gunma Prefecture. Especially on seasonal changes of Ascaris ova found in soil of cultivated land.] **5**, 117. [In Japanese.]

842—Kongelige Norske Videnskabers Selskabs Forhandlinger.

- a. ALLGÉN, C. A., 1955.—“Vergleich zwischen den marinen Nematodenfaunen Norwegens und der Arktis.” Year 1954, **27**, 22–26.
- b. ALLGÉN, C. A., 1955.—“Die Claparèdielliden Norwegens.” Year 1954, **27**, 37–41.
- c. ALLGÉN, C. A., 1955.—“Die Desmoscolecidea Norwegens I.” Year 1954, **27**, 59–63.
- d. ALLGÉN, C. A., 1955.—“Die Desmoscolecidea Norwegens II.” Year 1954, **27**, 64–68.
- e. ALLGÉN, C. A., 1955.—“Ueber einige weitere Südsee-Nematoden in der Strand-Fauna Norwegens.” Year 1954, **27**, 75–79.
- f. ALLGEN, C. A., 1955.—“Vertreter amerikanischer mariner Nematoden-Gattungen im Faunengebiet Norwegens.” Year 1954, **27**, 80–85.

(842a) Allgén tabulates the numbers of known species of marine nematodes found in nineteen Norwegian localities and in fifteen Arctic localities and indicates the number of species common to both regions. No nematode is mentioned by name. M.T.F.

(842b) Brief descriptions are given of the following species of *Claparèdiella* and *Prochaetosoma* which have been found in Norwegian waters: *Claparèdiella claparèdei*, *C. ophiocephala*, *C. macrocephala*, *C. tristicochaeta*, *C. longirostra*, *C. campbelli* and *Prochaetosoma cygnoides*. M.T.F.

(842c) Norwegian species of Desmoscolecidae are briefly described, namely, *Eudemoscolex chaetogaster*, *Desmoscolex minutus*, *D. adriaticus*, *D. minor*, *D. strandi* and *D. litoralis*. M.T.F.

(842d) Short illustrated descriptions are given of *Eutrichoma nanella*, *Tricoma nematooides*, *T. bergensis*, *T. norwegica*, *T. adelpha*, *T. profunda* and *Greeffiella oxycaudatum*. M.T.F.

(842e) Six nematodes from the Norwegian sea shore are briefly described and illustrated: *Phanoderma campbelli*, *Syringolaimus tenuicaudatus*, *Prochromadorella paramucrodonta*, *Diplopeltis longisetosus*, *Theristus macquariensis* and *T. cuspidospiculum*. M.T.F.

(842f) Short descriptions are given of nine marine nematodes from Norwegian waters which belong to genera described by Cobb from America: *Pseudonchus norwegicus*, *P. longus*, *P. donsi*, *Xennella suecica*, *Pseudolella norwegica*, *Omicronema nidrosiense*, *Halinema norwegicum*, *Cynura tenuicauda* and *Anticyclus exilis*. M.T.F.

843—Kyushu Agricultural Research.

- *a. TANAKA, I., 1955.—[Free-living nematode in gall caused by the root-knot nematodes.] No. 15, pp. 94–95. [In Japanese.]
- *b. FUKANO, H. & YOKOYAMA, S., 1955.—[On the damage by *Aphelenchoides oryzae* to rice plant, with special reference to the variety without white-tip symptom.] No. 16, p. 114. [In Japanese.]
- *c. GOTO, S., 1955.—[On the influence of some factors upon the pathogenicity of nematic root rot of sweet potato. 3. Fertilizers and compost manures.] No. 16, p. 119. [In Japanese.]

844—Laboratorio. Granada.

- *a. GONZÁLEZ CASTRO, J. & FERNÁNDEZ AMELA, T., 1955.—“Antígeno ascaridiósico elaborado con líquido celómico para una nueva prueba de floculación sobre porta. Nota previa.” **20** (116), 101–112.

845—Lancet.

- a. COMFORT, A., 1955.—“Longevity in a tapeworm?” [Correspondence.] Year 1955, **2** (6885), 346.
- b. JOPLING, W. H., 1955.—“Expelling tapeworms with meprazine.” [Correspondence.] Year 1955, **2** (6894), 826–827.
- c. SHAFEI, A. Z., 1955.—“Piperazine as anthelmintic.” [Correspondence.] Year 1955, **2** (6894), 827.
- d. NAGATY, H. F., RIFAAT, M. A. & SALEM, S., 1955.—“Piperazine as anthelmintic.” [Correspondence.] **2** (6894), 827–828.

e. RAFAELSEN, O. J., 1955.—“Expelling tapeworms with mepacrine.” [Correspondence.] Year 1955, 2 (6897), 980-981.

(845a) Commenting on Black’s letter [for abstract see Helm. Abs., 24, No. 587a] Comfort writes that *Taenia saginata* has been reported to live for over 35 years, *Diphyllobothrium latum* for 29 years and hydatid cysts for as long as 56 years. S.W.

(845b) Jopling does not agree with Seaton [for abstract see Helm. Abs., 24, No. 410b] that *filix mas* is ineffective against tapeworm infections. He points out that fresh material must be used, that it must be given in sufficiently high dosage and that starvation before treatment is essential; in addition if given by duodenal tube the amount must be much increased as almost half the extract sticks to the inside of the tube. He has found that an emulsion containing 90-120 minimis of liquid male fern extract and $\frac{1}{2}$ oz. glycerin given by mouth in three divided doses at 15-minute intervals is extremely efficacious, 90% cure rate being obtained with a single treatment. The manner in which glycerin exerts its beneficial effect has still to be determined. S.W.

(845c) Shafei treated 80 patients with *Ascaris* infections with piperazine citrate; 50 were given a single dose (3 gm. for adults and children over 25 kg., 2.5 gm. for children weighing less than 25 kg.) and 22 of the 26 who were followed up for one month were free from worms; 30 were given a daily dose for seven days (0.75 gm. for children 2 to 3 years old, 1.3 gm. for those 3 to 10 years and 1.5 gm. for those over ten years old) and of 20 followed up for one month all were cured. Some efficacy was also obtained against *Enterobius*, *Trichuris*, *Hymenolepis* and *Trichostrongylus*, but *Ancylostoma* was not affected. S.W.

(845d) Patients, weighing 40 kg. to 80 kg., were treated for ascariasis either with piperazine adipate given as a single dose of 4.5 gm. or a total of 8.1 gm. over three days, or with piperazine citrate as single doses of 3 gm. and 5 gm. or repeated on two or three days. The only side effects were slight dizziness and mild colicky pains. Stool examinations were performed daily for two weeks after the treatment. Single doses of either salt caused the expulsion of most of the worms but gave few cures, while all five cases [three in the table] receiving the 8.1 gm. dose of adipate and one out of two receiving 10 gm. of citrate in two days, were cured. Cure was similarly affected in all five cases with *Trichostrongylus* and, on prolonged treatment, in both cases with *Heterophyes*. G.I.P.

(845e) Rafaelsen has found mepacrine to be very effective against tapeworm infections. In 20 patients treated the complete worm was passed in 16 and follow up of the remaining four showed that proglottides did not reappear in the faeces. Adequate purging is essential but in his experience duodenal intubation does not increase the efficacy. S.W.

846—Laval Médical.

a. GUAY, M., 1955.—“Infestation par le ténia: nouveau procédé de traitement.” 20 (4), 497-500. [Discussion p. 500.]

(846a) Guay describes Wilkinson’s method for the treatment of human taeniasis. A mixture is administered, by duodenal intubation, in the following manner: first 50 c.c. of glycerin; then 50 c.c. of a 50% solution of magnesium sulphate; then 100 c.c. of a mixture of equal parts of each of these ingredients; finally, 500 c.c. of physiological salt solution. It is a disagreeable treatment requiring hospitalization, but merits trial when other methods have failed. J.M.W.

847—Lucrările Sesiunii Științifice. Institutul Agronomic “Nicolae Bălcescu”, Bucharest.

a. VLĂDUTIU, O., LUNGU, V., MURGU, I. & BLIDARU, T., 1955.—“Tratamentul chirurgical al cenurozei cerebrale la oaie. Cercetări experimentale și observații clinice.” 1, 379-391. [French & Russian summaries pp. 390-391.]

(847a) Vlăduțiu *et al.* conclude from the results of comparative experiments on 51 sheep infected with *Coenurus cerebralis* that trepanning the skull and removing the cyst is the method

of choice, giving a much higher percentage of cures than puncture of the cyst and withdrawal of the fluid. The best time for operation is when the cyst reaches its maximum development and the sheep recover fully after three to six weeks.

G.I.P.

848—Lyon Chirurgical.

- *a. KOURIAS, B., 1955.—“Règles actuelles du traitement chirurgical de l'échinococcose abdominale secondaire. D'après 110 cas.” **50** (4), 407-417.

849—M.S.U. Veterinarian. Michigan State University.

- a. OTTO, G. F., 1955.—“Problems in the treatment of heartworms, *Dirofilaria immitis*, of dogs.” **16** (1), 35, 38-41.
- b. THOMAS, C. E., 1955.—“An interesting parasite case.” **16** (1), 50.

(849b) Thomas describes a case of mixed whipworm and hookworm infection in a five-year-old pointer with a history of chronic diarrhoea. Sodium nitrate flotation revealed a very severe and apparently pure whipworm infection which was treated with Whipcide at 200 mg. per kg. body-weight. After this the diarrhoea condition increased and there was considerable blood in the faeces. A blood transfusion was given. Faecal examination showed a heavy hookworm infection. This was successfully treated with Vermiplex capsules and the dog recovered rapidly.

S.W.

850—Magyar Állatorvosok Lapja.

- a. PELLÉRDY, L. & MIKLOVICH, M., 1955.—“Sertések orsóférgességének kezelése kadmium-antraniláttal.” [Control of Ascaris in swine with cadmium anthranilate.] **10** (7), 228-229. [English & Russian summaries p. 229.]
- b. BORAY, J., 1955.—“Piperazinadipát alkalmazása háziállataink orsóférgességének gyógykezelésére.” [Treatment of Ascaris infestation with piperazine adipate.] **10** (7), 230-232. [English & Russian summaries p. 232.]
- c. SZÉKY, A. & NEMÉSÉRI, L., 1955.—“Adatok a trichinellosis kórszövettanához kísérletes vizsgálatok alapján.” [Experimental Trichinella infestation.] **10** (7), 233-234.
- d. HORVÁTH, J., 1955.—“Májmétyékkel kapcsolatos megfigyelések.” [Observations on fascioliasis.] **10** (7), 243-244.
- e. KOTLÁN, S. & KASSAI, T., 1955.—“A juhok gócos tüdőférgességének orvoslása emetin-hydrochloriddal.” [Treatment of lungworm infestation in sheep with emetine hydrochloride.] **10** (9), 289-296. [English & Russian summaries pp. 295-296.]
- f. BORAY, J., 1955.—“Kísérletes vizsgálatok az ebek echinococcosisáról.” [Experimental studies on echinococcosis in dogs.] **10** (11), 370-377. [English & Russian summaries p. 377.]
- g. KOTLÁN, S., 1955.—“A szarvasmarha-tüdőférgesség gyakorisága és jelentősége hazánkban.” [Verminous bronchitis of cattle in Hungary.] **10** (12), 399-402.
- h. NEMÉSÉRI, L., 1955.—“Vizsgálatok mikrofiláriákknak lovak szemében való gyakoriságáról és ezeknek körterületi jelentőségéről.” [Incidence and pathology of microfilariae in the eyes of horses.] **10** (12), 421-424. [English & Russian summaries pp. 423-424.]

(850a) The passing of *Ascaris* eggs by 135 pigs ceased after cadmium anthranilate had been added to their food for three days at the rate of 0·05% or 0·066%. Autopsies on a further ten pigs thus treated demonstrated complete cure. The chemical was not toxic and was readily taken by the animals.

G.I.P.

(850e) The treatment of verminous pneumonia in 109 sheep with 3 gm. per kg. body-weight of emetine hydrochloride in 1% aqueous solution, given orally or subcutaneously and repeated after two days, resulted in a significant reduction of the larvae passed ten to eleven days after the first dose. Daily faecal examinations for one month following the treatment showed that 73·3% of the sheep had been cured of *Protostrongylus* and 82·6% of *Cystocaulus* infections and that the intensities had been reduced by 92·1% and 78·7% respectively. The actual death of worms in the lungs was not observed, however, until six to seven weeks after treatment. Increased doses were toxic, becoming lethal. Even the above optimum dose frequently caused shedding of wool and should not be used for sheep in poor condition. The anthelmintic was ineffective against *Dictyocaulus filaria*.

G.I.P.

(850h) The occurrence of *Onchocerca cervicalis* was examined in relation to chronic eye disease in horses. In 170 out of 216 horses, worms were found in the occipital ligament and microfilariae in the skin and in 125 horses microfilariae were also present in the eyes. Of the 48 horses suffering from chronic internal inflammation of the eyes, the ligament was infected in 40 and in 28 the eyes also, while of 168 horses with apparently healthy eyes, infection of the ligament was seen in 130 and, simultaneously, of the eyes in 97. Small numbers of microfilariae did not cause inflammation resulting in periodic ophthalmia. There was a positive correlation between the number of microfilariae in the skin and in the eyes. Microfilariae were present in skin sections from three only out of 14 horses with acute ophthalmia. Thus Nemeséri presumes that only a few microfilariae could have been present in the eyes which, however, were not examined.

G.I.P.

851—Manufacturing Chemist, London.

- a. AKACIC, B. & PETRICIC, J., 1955.—“Thyme oil as an anthelmintic.” [Abstract of paper presented to the Medicinal Plants Section of the 16th International Pharmaceutical Federation, London, September 19–23, 1955.] **26** (11), 497.
- (851a) [A fuller account of this paper appeared in *Acta pharm. jugosl.*, 1955, **5**, 183–188. For abstract see Helm. Abs., **24**, No. 479a.]

852—Maroc Médical.

- a. ARMAND, P., 1955.—“Forme pseudo-oslérienne d'une ankylostomose sévère. Réflexions sur l'insuffisance cardiaque vermineuse.” **34** (359), 363–365.
- b. TISSIER, M., TAUZIN, J., CHICOU, J. & BAUDOUARD, Y., 1955.—“Pneumothorax spontané (2 cas) au cours d'une distomatose des voies biliaires à *Fasciola hepatica*.” **34** (359), 415–416.
- c. CHENEBAULT, J., 1955.—“Notes sur le kyste hydatique du poumon chez l'homme, au Maroc.” **34** (359), 417–422.
- d. CHEVRET, R., 1955.—“Traitement chirurgical des kystes hydatiques du poumon.” **34** (359), 423–426.
- e. LAFFERRE, M., 1955.—“L'ankylostomose et le parasitisme amibien.” **34** (359), 470–473.
- f. GAUD, J., 1955.—“Introduction à la parasitologie marocaine.” **34** (367), 1511–1524.

(852a) Armand describes a case of extremely severe ancylostomiasis, in a repatriated prisoner-of-war from Vietminh, which was originally diagnosed as Osler's disease. Repeated treatment failed to eliminate the parasites. It appears that, in this case anyway, the hookworms were responsible for the cardiac insufficiency either by a direct effect of the acute anaemia or by their toxins. The author notes that almost all the prisoners-of-war from Indo-China suffer from ancylostomiasis and, from his observations on 24 cases, considers that autoinfection may occur.

S.W.

(852f) This paper is concerned mainly with malaria and intestinal protozoa but mention is made of hookworm, *Strongyloides*, *Ascaris*, *Enterobius*, *Trichuris*, *Hymenolepis nana* and *Taenia saginata*.

S.W.

853—Mededelingen van het Instituut voor Rationele Suikerproductie. Bergen-op-Zoom.

- a. OUDEN, H. DEN, 1955.—“Het bietencystenaaltje en zijn bestrijding. II. Waardplanten en hun betekenis voor de bietenteelt.” **24** (3), 123–139. [English & French summaries pp. 137–138.]

(853a) This is a record of the testing of many plants (including weeds) in Britain and Holland to find their efficiency as hosts of the beet eelworm *Heterodera schachtii*. The results are tabulated; the plants tested belonged mainly to the families Cruciferae, Chenopodiaceae and Polygonaceae although members of the Labiate, Amaranthaceae, Caryophyllaceae, Phytolaccaceae, Scrophulariaceae and Tropaeolaceae were also included.

J.J.H.

854—Medical Annals of the District of Columbia.

- *a. FERGUSON, A. D., SCOTT, R. B. & JENKINS, M. E., 1955.—“Oxyuriasis: incidence in two socio-economic groups of Negro children. Use of piperazine citrate in therapy.” **24** (6), 297–299.

855—Medical Press. London.

- a. DEW, H. R., 1955.—“Hydatid disease of the liver.” **234** (3), 56–60.

856—Medicina. Madrid.

- a. FRAGA Y AZEVEDO, J., 1955.—“Importancia de las bilharziosis humanas en Africa. Dificultades y perspectivas actuales de su profilaxis.” **23** (II (11)), 526–574.

(856a) [This paper also appears in *An. Acad. Med., Madr.*, 1954, **71**, 117–173. For abstract see Helm. Abs., **23**, No. 764a.]

857—Medicina Colonial. Madrid.

- a. MARINE PÉREZ, J., 1955.—“Enterobiasis: etiopatogenia, sintomatología, diagnóstico y tratamiento.” **25** (5), 451–458.
 b. PRIETO LORENZO, A., 1955.—“Los parasitismos intestinales por vermes entre los lazarios de Trillo (Guadalajara).” **26** (3), 212–217.

858—Medicina Española.

- a. SANCHIS BAYARRI, V., BORJA, J. M. & FERRER SOLER, V., 1955.—“El test de Thorn con la monosemicarbazona del adrenocromo en la triquinosis.” **33** (190), 10–20.
 b. GASCO, J., OLAGÜE, J. & NARBONA ARNAU, B., 1955.—“Quistes hidatídicos de mediastino.” **34** (199), 278–292.

859—Medicine Illustrated. London.

- *a. McFADZEAN, J. A., 1955.—“Filariasis.” **9** (8), 501–507.

860—Medizinische Klinik.

- a. WIGAND, 1955.—“Helminthiasen V.” **50** (25), 1072–1074.
 b. KIRCHMAIR, H., 1955.—“Klinik und Therapie der Ankylostomiasis.” **50** (32), 1333–1336.

(860a) This is a review of six papers on helminths of man and their appropriate anthelmintics published in Germany in 1954. M.MCK.

861—Mémoires de l'Académie de Chirurgie. Paris.

- a. STOJANOVIC, V. & VUJADINOVIC, B., 1955.—“A propos d'un cas de kyste hydatique du cœur.” **81** (33/34), 1050–1053.

862—Memoirs of the College of Medicine, National Taiwan University.

- *a. LEE, W. H., 1955.—“Roentgen diagnosis of pulmonary paragonimiasis.” **4** (1), 23–38.

863—Military Medicine.

- a. ALICNA, A. D., 1955.—“Parasitic infections found among repatriated personnel of the Korean conflict.” **117** (2), 113–114.

864—Minerva Pediatrica. Turin.

- a. SEGAGNI, E., 1955.—“Alcuni aspetti clinici dell'ascaridiasi nell'infanzia.” **7** (39), 1172–1180. [English, French, German & Spanish summaries p. 1180.]

865—Mitteilungen des Naturwissenschaftlichen Vereines für Steiermark.

- a. HERAN, H., 1955.—“Allgemeine faunistische Nachrichten aus Steiermark (II) Vermes: Scolecida, Plathelminthen (Cestodencysticeroide).” **85**, 5.

(865a) The body-cavity of an *Eisenia rosea* (Lumbricidae) found north-east of the Thaler Bach near Graz was filled with about 1,000 undiagnosed taeniid cysticercoids, on the everted scolex of which could be seen a rostellum and a single crown of 14 hooks each measuring 0.082 mm. in length. G.I.P.

866—Monatsschrift für Kinderheilkunde.

- a. HARNACK, G. A. VON, 1955.—“Oxyuriasis im Säuglingsalter.” **103** (8), 365-368.
b. GROTE, K., 1955.—“Fasciolosis als Ursache einer Hepatosplenomegalie.” **103** (11), 482-484.

(866a) Von Harnack considers that the low incidence of enterobiasis in infants, and the mild course of the infection is due to low stomach acidity. *Enterobius* larvae will not hatch in a medium in which the pH is more than 4. Although the effect of trypsin in the duodenum and jejunum could provide the conditions for hatching it is thought that the relatively quick passage through the intestine would in the majority of cases preclude it. A.E.F.

(866b) Grote describes a case of *Fasciola hepatica* infection in a 14-year-old girl, accompanied by pain in the upper abdomen, enlargement of the liver and spleen, disturbed liver function, eosinophilia and a subfebrile temperature. This short paper is intended to draw attention to a condition considered rare in Germany but which is clearly on the increase. A.E.F.

867—Monitore Zoologico Italiano.

- a. SCIACCHITANO, I., 1955.—“Su un gordio fossile.” **63** (1/2), 57-61. [English, French & German summaries p. 60.]

(867a) Sciacchitano considers that the fossil *Gordius tenuifibrosus* Voigt, 1938 is a synonym of *G. albopunctatus* G. W. Müller, 1927. M.MCK.

868—Montpellier Médical.

- a. TRUC, E., 1955.—“La bilharziose urinaire doit être mieux connue.” **47** (4), 376-389.

869—Mycologia.

- a. DRECHSLER, C., 1955.—“Additional species of Zoopagaceae subsisting on rhizopods and eelworms.” **47** (3), 364-388.

(869a) Drechsler describes in full detail, with accompanying line drawings, eight new species of the family Zoopagaceae. All were obtained from decaying vegetable matter. Only one of these species, *Euryancale obliqua* n.sp., is parasitic in nematodes. A.M.S.

870—Nachrichtenblatt des Deutschen Pflanzenschutzdienstes. Stuttgart.

- a. GOFFART, H., 1955.—“Phytonematologie: Forschung oder Beratung?” **7** (8), 139-140.
b. GOFFART, H., 1955.—“Nematodenforschung in den Vereinigten Staaten.” **7** (10), 165-167.

871—National Medical Journal of China.

- *a. HSÜ, P. K., 1955.—[A preliminary study on the morphology and ecology of *Oncomelania* in Kwangtung.] **41** (2), 117-125. [In Chinese.]
- *b. SHEN, C. T. & WU, T. L., 1955.—[The incidence of oxyuriasis in 103 school children as found by two techniques of anal scraping: a preliminary report.] **41** (2), 142-144. [In Chinese.]
- *c. YÜ, I. H., P'ENG, C. S., LIANG, H. S. & HSÜ, W. H., 1955.—[Cotton swab flotation method in the examination of Oxyuris eggs.] **41** (2), 145-146. [In Chinese.]
- *d. YANG, W. T., 1955.—[A preliminary report on a method of examining the eggs of *Taenia saginata*.] **41** (2), 147-149. [In Chinese.]
- *e. SÜ, S.C., TUNG, M. S. & YANG, P., 1955.—[Report on the clinical study of a human case of *Gongylonema* infection.] **41** (2), 150-152. [In Chinese.]

- *f. YÜ, C. H. & CHAO, H. K., 1955.—[Cerebral cysticercosis: an analysis of clinical cases.] **41** (2), 153-156. [In Chinese.]
- *g. WANG, C. H., 1955.—[Multiple intestinal perforations due to Ascaris.] **41** (2), 157-158. [In Chinese.]
- *h. YÜ, C. H. & YANG, W. P., 1955.—[The emergence of Ascaris through the umbilicus: a case report.] **41** (2), 159. [In Chinese.]
- *i. WANG, H. H., 1955.—[Treatment of *Taenia saginata* with decoction of areca nut: a supplementary report of 106 cases.] **41** (2), 160. [In Chinese.]

872—Naturalia. Lisbon.

- a. GOMES-FERREIRA, J. V., 1955.—“Como preparar fascíolas hepáticas e ténias para observação anatómica. Algumas indicações sobre a sua técnica.” **5** (2), 75-84.

(872a) Gomes-Ferreira describes the technique for making permanent preparations of *Fasciola* and *Taenia* proglottides. The flukes are washed in cold water to expel gut contents then shaken in 1% saline. Fixation of both flukes and tapeworms is carried out in 5-10% formalin under pressure, followed by washing in running water for two days. Specimens are stained either in Grenacher's borax carmine or Mayer's haemalum then differentiated in acid alcohol, dehydrated, cleared in xylol or benzene and mounted in Canada balsam. C.W.

873—Nauchnie Trudi. Ukrainski Institut Eksperimentalnoi Veterinarii.

- a. KLESOV, M. D. & POPOVA, Z. G., 1955.—[Results of two years of anthelmintic measures in the Kakhovka district.] **22**, 195-202. [In Russian.]

(873a) The authors report the good results of their three years' work in the Khakovka and surrounding areas in the Ukraine, firstly concerned with the instruction of veterinary workers, and the determination of the distribution of *Fasciola* in cattle and sheep, *Thelazia* in cattle and *Ascaridia* in fowls, and followed by the application of control measures planned for suitability to local conditions and the ecological characteristics of the helminths. G.I.P.

874—New York State Journal of Medicine.

- a. WERTHEIM, J. M. & COHEN, S., 1955.—“A case of trichinosis treated with cortisone.” **55** (13), 1908-1909.

875—New Zealand Medical Journal.

- a. MOLLOY, P. J., 1955.—“Pericardial hydatid cysts.” **54** (301), 267-270.

876—Nytt Magasin for Zoologi. Oslo.

- a. VIK, R., 1955.—“Invasion of *Skrjabingylus* (Nematoda) in Norwegian Mustelidae.” **3**, 70-78.

(876a) Vik records the nematode *Skrjabingylus nasicola* for the first time from Norway, specimens having been found in the frontal and ethmoid sinuses of a male *Mustela nivalis* captured at Slepden, near Oslo. 266 mustelid skulls belonging to seven different species from Norwegian museums and private collections were examined and the characteristic perforations caused by *S. nasicola* were found in 26 out of 88 *Mustela erminea* and 20 out of 48 *M. nivalis*; but in no other species. Two female *S. nasicola* were also recovered from the frontal sinus of a female *Putorius putorius* collected at Gjølstad in Vestby, Østfold county. This host was also infected with *Trichinella spiralis* and with *Molineus europaeus* (first Norwegian record). Vik considers that skull perforations cannot be used in assessing the frequency of *S. nasicola* infection since the worms may be capable of perforating only the thinner skulls of the smaller mustelid species. He discusses the possibility of the occurrence of *S. petrowi* and *S. chitwoodorum* in Norway. J.M.W.

877—Okayama Igakkai Zasshi.

- *a. INATOMI, S. & KIMURA, M., 1955.—[Distribution of *Bulinus striatulus* var. *japonicus* and incidence of natural infection of dogs and cats with *Clonorchis sinensis* in Okayama Prefecture.] **67** (3/4), 651-653. [In Japanese: English summary.]

878—Orvosi Hetilap.

- *a. FRANK, K., PATAKY, G. & ANDRÁSOFSZKY, B., 1955.—“*Fasciola hepatica* a gyermekkorban. Adatok a gyermekkori bélférgesség kérdéséhez.” [F. hepatica in childhood. Data on infantile intestinal parasitic diseases.] **96** (50), 1394–1396.

879—Pediatria Polska.

- *a. RUDNICKA, W., 1955.—“Przypadek ropnia podprzeponowego spowodowanego glistnicą.” [Subphrenic abscess caused by helminthiasis.] **30** (8), 695–696.
 *b. BIAŁOWAS-WYSOCKA, K., 1955.—“Ostra niedrożność przewodu pokarmowego spowodowana glistami.” [Acute intestinal obstruction caused by helminths.] **30** (8), 697–698.

880—Pediatría Prática. São Paulo.

- *a. NETTO, V. A. & CORRÊA, M. O., 1955.—“Tratamento da enterobiase pelo hidrato de piperazina.” **26** (9), 243–250.

881—Pediatric Clinics of North America.

- a. SMITH, M. H. D. & BEAVER, P. C., 1955.—“Visceral larva migrans due to infection with dog and cat ascarids.” Year 1955, pp. 163–168.

882—Pediatrics. Springfield, Ill.

- a. SWARTZWELDER, C., MILLER, J. H. & SAPPENFIELD, R. W., 1955.—“Treatment of ascariasis in children with a single dose of piperazine citrate.” **16** (1), 115–117.

(882a) A single dose of piperazine citrate, in a syrup, completely eliminated *Ascaris* ova from the faeces of 16 out of 17 children. The egg count in the remaining child was reduced by 93%. The dosage was based on 70 mg. per lb. body-weight, with a maximum of 3 gm.

R.T.L.

883—Pédiatrie. Lyons.

- a. SARROUY, C., SENDRA, L., ROMEO, R., DALAUT, J. & GITARD, R., 1955.—“Traitement de l’ascaridiose par l’oxygène intra-duodénal.” **10** (7), 777–778.

(883a) The authors report complete success in the treatment of ascariasis in three children by the intra-duodenal intubation of oxygen.

S.W.

884—Pharmacological Reviews.

- a. HAWKING, F., 1955.—“The chemotherapy of filarial infections.” **7** (2), 279–299.

(884a) Hawking gives a brief general account of the filariae which cause human diseases and reviews the very large numbers of papers which have been published on the chemotherapy of these infections. Amongst the drugs which he discusses are diethylcarbamazine and other piperazine compounds, antimonials, arsenicals, cyanine compounds, suramin and gentian violet. He has observed, during screening tests on *Litomosoides*, that sodium vanadyl tartrate kills many of the microfilariae although not, apparently, the adults. The bibliography includes 131 titles.

S.W.

885—Policlinico (Sezione Pratica). Rome.

- a. ROSSI-ESPAGNET, A. & PERICOLI, F., 1955.—“Comportamento di alcuni fattori emocoagulativi e del quadro sieroproteico nell’anchilostomiasi.” **62** (20), 661–665. [English & French summaries pp. 664–665.]
 b. BOCCARDELLI, V. & ROSSI-ESPAGNET, A., 1955.—“Il cuore nell’anchilostomiasi. (Studio clinico, radiologico ed elettrocardiografico di 16 casi.)” **62** (33), 1093–1102. [English & French summaries p. 1102.]

886—Polski Tygodnik Lekarski. Warsaw.

- *a. STEFANICKA-WIECHOWA, A., 1955.—“Rzadki przypadek glistnicy ludzkiej powiklany rozłanym zapalaniem otrzewnej u 2-letniego chłopca.” [A rare case of ascariasis complicated by diffuse peritonitis in a two-year-old boy.] **10** (22), 721–723. [English & Russian summaries.]

887—Polskie Archiwum Medycyny Wewnętrznej.

- *a. ŁAWIŃSKA-STANKIEWICZOWA, S., 1955.—“Przypadek paragonimazy.” **25** (2), 361–367.
 *b. KOMARNICKA, R., 1955.—“Wągrzyca uogólniona tkanki podskórnej i mięśniowej oraz układu nerwowego.” [Generalized cysticerciasis of subcutaneous and muscle tissue and of the nervous system.] **25** (3), 461–466.

888—Praxis. Berne.

- a. BÜELER, R., 1955.—“Erfahrungen mit Aloxy-Salbe (HH 144) in der Behandlung der Oxyuriase.” **44** (23), 526–528.

(888a) Büeler reports on the combined use of Aloxy *per os* and Aloxy ointment in the treatment of enterobiasis. The ointment is intended to combat pruritus and at the same time prevent autoinfection which might result from neglect of personal hygiene. The ointment was used throughout the two periods of oral administration and during the interval between them. The treatment was much more successful than oral Aloxy alone. A.E.F.

889—Proceedings of the British Society of Animal Production.

- a. SPEDDING, C. R. W., 1955.—“The control of parasites by grazing management.” Year 1955, pp. 30–37.

(889a) Spedding took two similar groups of six-week-old lambs raised, with their ewes, under worm-free conditions in indoor pens, and infected one group with a total of 12,150 infective strongyle larvae over a period of a month. Both groups were weaned at 14 weeks of age and grazed in rotation over a separate series of three paddocks on pasture sown on land that had carried no sheep or cattle for over two years. Both groups were slaughtered and autopsied after six months. The control lambs remained almost worm-free but the experimental animals continued to be heavily infected and suffered continual reinfection. Measurements of the carcasses showed that bone, muscle and fat growth together with wool production had all been depressed in the infected lambs, the greatest reduction being in the amount of fat. The author suggests that reinfection and cross infection can be prevented by folding a newly sown ley on land that has either carried no ruminant stock for two years or rested for one year including ploughing and sowing, moving the sheep every two days, and never returning to an area once grazed. J.M.W.

890—Proceedings of the Hawaiian Academy of Science.

- a. OGURI, M. & CHU, G. W. T. C., 1955.—“Influence of diet on the susceptibility of domesticated ducks to parasitism by a marine trematode.” [Abstract.] 30th Annual Meeting (1954–55), pp. 15–16.
 b. ALICATA, J. E. & DAJANI, S. W., 1955.—“Parasitological studies in the Hashemite Kingdom of Jordan.” [Abstract.] 30th Annual Meeting (1954–55), pp. 16–17.

(890a) In Hawaii, the final host of *Parorchis acanthus* is the ruddy turnstone *Arenaria interpres interpres*. Some marine birds (noddy terns, sooty terns and wedgetailed shearwaters) when fed exclusively on squids (*Loligo opalescens*) became 100% susceptible to the infection; domestic birds fed on a commercial poultry mash were completely resistant but when ducks were experimentally maintained for up to three months on a squid diet, subsequent infection with 150 to 200 cysts was successful. Bacteriological analysis of the faeces of squid-fed and mash-fed birds showed that the content of aerobes, anaerobes, coliforms and enterococci was similar for both, but that lacto bacilli were conspicuously absent from the faeces of squid-fed birds. Whether this absence is associated with a resistance-determining factor is yet unknown. G.I.P.

(890b) Of 125 persons from Jerusalem examined in April and 300 from Amman examined during August-October the helminth infections were respectively *Ascaris lumbricoides* in 77·6% and 51·3% and *Trichuris trichiura* 78·4% and 44·3%. Hookworm appeared to be rare or absent.

G.I.P.

891—Proceedings of the North Dakota Academy of Science.

- a. SHUMARD, R. F., 1955.—“The effect of diet on the length of third-stage larvae produced by adult *Haemonchus contortus* harbored by lambs.” [Abstract of paper presented at the 47th Annual Meeting of the North Dakota Academy of Science.] **9**, 33-34.

(891a) Shumard has shown experimentally that third-stage larvae from *Haemonchus contortus* parasitic in lambs which had received an adequate diet plus cobalt or trace minerals were significantly longer than those from lambs on the same diet but without the mineral supplement.

S.W.

892—Proceedings of the Oklahoma Academy of Science.

- *a. BURNHAM, G. L., 1955.—“A study of the helminth parasites of the pocket gophers of Woods, Alfalfa, Grant, and Marshall counties, Oklahoma.” Year 1953, **34**, 59-61.

893—Proceedings of the Oregon State Horticultural Society.

- *a. JENSEN, H. J., 1955.—“Nematode damage and control.” 47th Annual Meeting, pp. 138-139.

894—Proceedings of the Pennsylvania Academy of Science.

- a. OGREN, R. E., 1955.—“Development and morphology of glandular regions in oncospheres of *Hymenolepis nana*.” **29**, 258-264.
- b. HERBER, E. C., 1955.—“Life history studies on *Notocotylus urbanensis* (Trematoda: Notoctylinae).” **29**, 267-275.

(894b) Describing the various developmental stages of *Notocotylus urbanensis*, in *Physa gyrina* and the adults from the muskrat *Ondatra zibethica*, Herber points out that as the ventral glands vary in number and arrangement these characters have a limited value in differentiating closely allied species. On this account *Cata tropis fimbriata* and *Paramonostomum echinum* are probably synonymous with *N. urbanensis*. As Herber's experimental material differs from that of *N. urbanensis* used by Harrah, the latter's description must be discarded.

R.T.L.

895—Proceedings of the West Virginia Academy of Science.

- a. HARRIS, J., 1955.—“*In vitro* observations of nematodes.” [Abstract.] Year 1954, **26**, 106.

(895a) This author's abstract states that *Arthrobotrys oligospora* on maltose-casamino-acids-agar fails to form trapping nets in the absence of nematodes. It is suggested that its nematode-trapping mechanism may be stimulated by the urea secreted by the nematodes. An attempt to propagate nematodes in pure culture free from bacteria and fungi was unsuccessful.

R.T.L.

896—Przegląd Epidemiologiczny. Warsaw.

- *a. JEZIORAŃSKA, A., 1955.—“Badania nad diagnostyką serologiczną włośnicy u ludzi i zwierząt doświadczalnych. I. Odczyny precypitacyjne i odczyny wiążania dopełniacza.” [Investigations on serodiagnosis of experimental and clinical trichinosis. I. Precipitation and complement fixation reactions.] **9** (3), 211-223.

897—Ptitsevodstvo.

- *a. POTEMLINA, V. A., 1955.—[*Echinuria* infestation in water fowl.] **5** (12), 28-30. [In Russian.]

898—Public Health Reports. Washington.

- a. YOUNG, M. D., 1955.—“Parasitism in southeastern United States. A symposium.” **70** (10), 957.
- b. FAUST, E. C., 1955.—“History of human parasitic infections.” **70** (10), 958–965.
- c. WRIGHT, W. H., 1955.—“Current status of parasitic diseases.” **70** (10), 966–975.
- d. BAILEY, W. S., 1955.—“Veterinary parasite problems.” **70** (10), 976–982.
- e. KIMSEY, L. S. & ADAMS, S. L., 1955.—“*Trichinella spiralis* in the diaphragms of humans and swine.” **70** (10), 1001–1009.

(898b) Faust reviews the occurrence of helminths in man in the south-eastern states of the U.S.A. Before colonization by Europeans the American Indians were probably infected with *Ascaris* and *Trichuris* and their dogs with *Ancylostoma*. Other parasitic worms were introduced either by the Europeans or by the Africans imported as slaves and many serious problems developed. Public health programmes have brought about considerable control of the diseases and the situation is now less serious than it was in 1850 or 1900. S.W.

(898c) Wright reviews the present incidence of helminthic infections in man in the south-eastern states of the U.S.A. and tabulates current data with earlier figures for *Ascaris*, *Trichuris*, hookworm and *Trichinella*. Although these infections appear to be decreasing, zoonotic larval ascariasis (visceral larva migrans) and creeping eruption are still prevalent and nematode endophthalmitis is known to occur and may also prove to be of increasing importance. S.W.

(898d) Bailey, considering the influence of parasitism on the live-stock industry of the south-eastern states of the U.S.A., points out that it is difficult to make an accurate assessment as our knowledge is in many cases incomplete or entirely lacking. Clinical parasitism in adult cattle has increased tremendously in the last ten years. He discusses the species of helminths under the various hosts and stresses the need for fundamental research on which to base effective control programmes. S.W.

(898e) Kimsey & Adams examined two series of human diaphragms from routine autopsies at the Louisville General Hospital. In the first, direct microscopical examination of 311 revealed *Trichinella* cysts in 11·2% and in the second, where both direct examination and a modification of the Baermann digestion method were used, the incidence was 20·8% of 259. The diaphragms of 1,000 grain-fed pigs, killed in Louisville, were also examined and 0·2% were infected. S.W.

899—Publicaciones. Misión de Estudios de Patología Regional Argentina, Buenos Aires.

- a. MORINI, E. G., BOERO, J. J. & RODRÍGUEZ, A., 1955.—“Parásitos intestinales en el ‘marrá’ (*Dolichotis patagonum patagonum*).” **26** (85/86), 83–89.

(899a) Morini, Boero & Rodríguez have examined post-mortem a number of individuals of *Dolichotis patagonum patagonum* from the Zoological Gardens in Buenos Aires. The animals had shown symptoms of enteritis before they died. Three species of parasites were found, a new species of *Eimeria*, *E. dolichotis*, a trichostrongyle *Graphidiooides affinis* (Megnin, 1895) Cameron, 1923 and a new trichurid nematode which is described under the name *Trichuris dolichotis* n.sp. Only females of this species were recovered and it is differentiated from the two most closely related species *T. leporis* and *T. coypi* by the greater size of its eggs and by the greater length of the posterior part of the worm relative to the oesophageal part. This ratio is 1·5:2 in *T. dolichotis*, and 1·3:2 in *T. coypi* and 1:2 in *T. leporis*. C.W.

900—Radiology.

- a. MILLER, F. L. & WALKER, R., 1955.—“The roentgen characteristics of pulmonary paragonimiasis.” **65** (2), 231–235. [Spanish summary p. 235.]

901—Report of the Australian and New Zealand Association for the Advancement of Science.

- a. ROGERS, W. P., 1955.—“The physiological basis of parasitism.” 30th Meeting, pp. 105–120.

(901a) Rogers discussed the physiological adaptations which must be made by parasites of the alimentary canal when they enter and exploit this environment. W.P.R.

902—Report of the Commonwealth Scientific and Industrial Research Organization, Australia.

- a. AUSTRALIA. COMMONWEALTH SCIENTIFIC & INDUSTRIAL RESEARCH ORGANIZATION, 1955.—“Seventh Annual Report for the year ending 30th June, 1955.” 7th (1954–55), 185 pp. [See pp. 55–59, 61–63.]

903—Report. Department of Agriculture, New Zealand.

- a. FAWCETT, E. J., 1955.—“Animal Research Division. Parasitology.” Year 1954–55, pp. 64–65.

(903a) In this annual report brief mention is made of investigations into the effect of particle size on the efficiency of phenothiazine as an anthelmintic, the effect of preliminary dosing with copper sulphate on the efficiency of phenothiazine against *Trichostrongylus*, the efficacy of phenothiazine against immature trichostrongyles and against *Ostertagia* and the effect of this drug on the iodine content of the thyroid in lambs. S.W.

904—Report of the Department of Agriculture and Stock, Queensland.

- a. ANON., 1955.—“Division of Animal Industry. Veterinary Services Branch. Internal parasites.” Year 1954–55, p. 58.

(904a) In 1954–55 internal parasites assumed considerable importance in sheep and cattle in Queensland with *Haemonchus contortus* playing the major role. On the eastern Darling Downs, *Trichostrongylus* was prevalent in sheep and *Oesophagostomum* and *Haemonchus* attracted attention in the south-western areas. In cattle hookworms caused some deaths. Sparganum of *Diphyllobothrium erinacei* occurred mostly in wild pigs from Roma, Dalby, Georgetown, Ingham, Julia Creek and Atherton, but there were also several instances in domestic pigs on free range. R.T.L.

905—Report. East African Medical Survey and Research Institute.

- a. BOZMAN, C. A., 1955.—“Director’s report.” No. 6 (1954–55), 44 pp.

906—Reports on the Progress of Applied Chemistry.

- a. PETERS, B. G., 1955.—“Control of plant nematodes.” 40, 674–676.

(906a) A survey of literature dealing with the control of root-knot, the treatment of perennial crops and fumigation of soil is given. Work on the control of eelworms by electrical soil treatment and the disinfestation of plant products is also briefly reviewed. H.R.W.

907—Report. West of Scotland Agricultural College.

- a. ANON., 1955.—“Potato root eelworm.” Year 1954–55, pp. 38–39.

908—Revista de la Asociación Médica Argentina.

- a. LOGALDO, E., 1955.—“Quiste hidatídico y bocio. Doble proceso mórbido en la misma glándula.” 69 (801/802), 256–258.
b. LOGALDO, E., 1955.—“Distomatosis de las vías biliares. Litíasis vesicular.” 69 (801/802), 260–261.

909—Revista de Biología Tropical. Universidad de Costa Rica.

- a. SÁENZ H., C., CORDERO C., E., LIZANO, C., ARGUEDAS, J. & CHAVARRÍA, M. E., 1955.—“Clínica y terapéutica de la anquilostomiasis y de la tricocefalosis infantil.” **3** (2), 135–160. [English summary p. 158.]

(909a) In this survey of hookworm and *Trichuris* infections in 2,026 children in a hospital in Costa Rica, the authors found 40 infected with hookworm, 382 with *Trichuris* and 242 with other nematodes. A detailed account is given of 63 children with heavy infections, including the results of antihelmintic treatment with hexylresorcinol orally and by enema, *Ficus glabrata* latex, papain, carbon tetrachloride and tetrachlorethylene, and treatment of the anaemia with iron and blood transfusions. S.W.

910—Revista Brasileira de Tuberculose.

- a. PINTO, C. & SILVA, R. M., 1955.—“Schistosomiasis pulmonar.” **23** (157), 79–92. [English summary pp. 91–92.]

911—Revista Española de las Enfermedades del Aparato Digestivo y de la Nutrición.

- a. CALVO MELENDRO, J., 1955.—“El problema de la equinococosis alveolar.” **14** (2), 183–194. [English summary p. 194.]
 b. GALLART-ESQUERDO, A., RECODER CLAVELL, L. & BORRÁS MOLERA, F., 1955.—“Echinococcosis secundaria del peritoneo por rotura de un quiste hidatídico del hígado.” **14** (2), 195–200. [English summary p. 200.]
 c. CANALS MAYNER, R., 1955.—“Quiste hidatídico hepático. Fisiopatología de la pared adventicia glandular que rodea al parásito. Importancia de su conocimiento en pro de una terapéutica quirúrgica eficiente.” **14** (2), 201–221. [English summary p. 220.]
 d. BERGARECHE, J., 1955.—“Quiste hidatídico del mesocolon transverso y edema agudo del páncreas.” **14** (4), 416–421. [English summary p. 421.]

912—Revista de la Facultad de Ciencias Médicas de Buenos Aires.

- a. TAIANA, J. A., SCHIEPPATI, E., ARACAMA ZORRAQUIN, V. A. & LACOUR, G. A., 1955.—“Echinococcosis pulmonar. Tratamiento quirúrgico de 212 quistes.” **2** (1), 29–40. [English, French, German, Italian & Portuguese summaries pp. 38–39.]

913—Revista do Hospital das Clínicas. São Paulo.

- *a. CORRÉA, M. O. A. & AMATO NETO, V., 1955.—“Ineficácia do óxido estanhoso no tratamento da esquistossomíase mansônica.” **10** (4), 298–300. [English summary.]

914—Revista Ibérica de Parasitología.

- a. HARGIS, Jr., W. J., 1955.—“Monogenetic trematodes of Gulf of Mexico fishes. Part IV. The superfamily Capsaloidea Price, 1936.” Tomo Extraordinario, pp. 1–16. [Spanish summary p. 15.]

(914a) Continuing his series on Monogenea from the Gulf of Mexico, Hargis emends the diagnosis of the Monocotylidae, and describes *Monocotyle diademalis* n.sp. from *Dasyatis sabina* and *Dasyatis* sp. This appears to be most closely related to *M. pricei* from which it differs chiefly in having a longer cirrus (0.122 mm.–0.188 mm. long) which is looped around the more pyriform cirrus bulb. *M. pricei*, originally described by Pearse from a single distorted specimen found in *Archosargus probatocephalus*, was recovered in numbers from *D. americana* and *D. say* and is redescribed. The *Dasyatis* species are probably its natural hosts. Hargis gives a new diagnosis of *Monocotyle* to include the new species and the results of the work by Palombi in 1949 [for abstract see Helm. Abs., **18**, No. 566a]. Hargis emends *Heterocotyle* to include *H. aeacobatis* n.sp., from *Aetobatus narinari*, which has ten radial depressions on the opisthaptor instead of eight as in other species of *Heterocotyle*. The worms erroneously identified as *H. floridana* by Pearse in 1949 belong to this new species. *H. pseudominima* n.sp. from *Dasyatis* sp. is apparently closely related to *H. minima* but has a tubular testis curved into a ring-like shape, a stout curved cirrus, a thin-walled “cardiform” ootype-uterus

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- b. FREITAS, J. F. TEIXEIRA DE, 1955.—“Redescrição de *Ophidascaris arndti* Sprehn, 1929 (Nematoda, Ascaroidea).” Tomo Extraordinario, pp. 17-22. [English & Spanish summaries p. 21.]
- c. CABALLERO Y C., E., 1955.—“Helmintos de la Rupública de Panamá. XIII. Una nueva especie de *Catadiscus* Cohn, 1904. (Trematoda: Digenea).” Tomo Extraordinario, pp. 23-26. [English summary pp. 25-26.]
- d. SINGH, K. S., 1955.—“Two new species of nematodes from a millipede from India.” Tomo Extraordinario, pp. 35-44. [Spanish summary p. 43.]
- e. SCHUURMANS STEKHOVEN, J. H., 1955.—“La parasitología, rama de la biología general.” Tomo Extraordinario, pp. 45-57. [English summary p. 57.]

complex which narrows abruptly to the gonopore and a sinuous ridge of septa on the opisthaptor. *H. americana* n.sp. from *D. americana* has a shorter and stouter body than *H. pseudominima*, a thicker and longer cirrus with large ornamentation, a more muscular vagina and the ootype-uterus curves to the left and then proceeds anteriorly on the right side as a flared uterine chamber to the gonopore.

M.MCK.

(914b) Freitas redescribes *Ophidascaris arndti* from the snake *Xenodon merremii* in Mato Grosso, Brazil, and reports the finding of *O. arndti* and *O. sicki* in *X. severus* in the same locality.

M.MCK.

(914c) *Catadiscus rodriguezi* n.sp., found in the frog *Leptodactylus pentadactylus* from Panama, resembles *C. marinholuzi*, *C. uruguensis* and *C. mirandai* but it usually contains only ten to fifteen eggs, the pyriform muscular pharynx measures 0.106-0.152 mm. \times 0.061-0.118 mm., the vitellaria are arranged in a few compact groups on both sides of the body and extend from the hind end of the cirrus sac to behind the ovary and testis, and the ovary is transversely elongate. Caballero gives the name prepharynx to that portion of the gut extending from the oral sucker to the pharynx and notes that other authors have called the prepharynx the oesophagus and have considered the oral sucker to be the pharynx.

M.MCK.

(914d) *Rhigonema neyrae* n.sp. (apparently the first nematode to be described from a millipede in India) and *Thelastoma ornata* n.sp. are reported from *Thyroglossus malayus* from Lucknow. Although *R. neyrae* most closely resembles *R. multipapillata* and *R. nigella* it has no rod-like structures in the oesophagus and the spicules, which are curved and equal and are 0.28 mm.-0.336 mm. in length, measured in a straight line. It has no transverse striations but there are fine retrorse bristles covering the anterior half of the body, a vagina uterina links the true vagina with the amphidelphic uteri. The eggs average 0.0813 mm. \times 0.063 mm. in size. There are four or five pairs of pre-anal subventral papillae, one median ventral papilla lies just anterior to the cloaca and, behind the anus, there are four subventral and three (usually lateral) pairs of papillae. The female of *Thelastoma ornata* is differentiated from that of *T. glomerica* by the length of the body (average 3.637 mm.), the position of the excretory pore about 0.495 mm. from the anterior end, the position of the vulva just anterior to the middle of the body and the size of eggs, which average 0.071 \times 0.05 mm. The presence of a spicule and one unpaired and three pairs of anal papillae distinguish it from *T. pteronion*. Singh points out that Chitwood & Chitwood (1940) have given rise to some confusion by naming several different nematode structures the spermatheca or seminal receptacle.

M.MCK.

(914e) Schuurmans Stekhoven observes that the host-parasite relationship is a special case of the general interrelationships which unite the organisms in a given environment, illness of the host being often no more than the disturbance of the biological equilibrium and a search for a new equilibrium. The definitions of parasitism, commensalism and symbiosis are given with examples and the types of morphological changes associated with the adoption of a parasitic way of life are described. Some of the early helminthologists and their work are briefly recalled and Schuurmans Stekhoven notes that parasitology is no longer purely descriptive but has reached the stage of physiological investigation and is becoming established as a branch of biology.

M.MCK.

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- f. JORDANO, D., 1955.—“Diferenciación biométrica entre *Diplopylidium triseriale* (Lühe) y *D. acanthotetra* (Parona) (Cestoda: Dilepididae) mediante la prueba *t*.” Tomo Extraordinario, pp. 59–63. [English summary p. 63.]
- g. SMYTH, J. D., 1955.—“Problems relating to the *in vitro* cultivation of pseudophyllidean cestodes from egg to adult.” Tomo Extraordinario, pp. 65–86. [Spanish summary p. 85.]
- h. SCOTT, J. W., 1955.—“A new description of *Diphyllobothrium cordiceps* (Leidy 1872).” Tomo Extraordinario, pp. 99–108. [Spanish summary p. 108.]
- i. TARAZONA VILAS, J. M., 1955.—“Cestodos parásitos de vertebrados en la provincia de Huesca.” Tomo Extraordinario, pp. 109–122. [English summary p. 121.]

(914f) Student's mathematical *t* test applied to the lengths of the hooks of *Diplopylidium triseriale* and cysticercoids of *D. acanthotetra* shows that these are different species since the mean lengths of the hooks of the first and second crowns are shorter in *D. triseriale* ($62\cdot7\mu$ and $50\cdot5\mu$ respectively, as compared with 76μ and $58\cdot8\mu$) whereas the hooks of the third crown are longer ($36\cdot3\mu$ as compared with $32\cdot5\mu$). The hooks of *D. triseriale* from Spain were not significantly different in their lengths from the measurements recorded for *D. triseriale* from Tunisia.

M.MCK.

(914g) With reference chiefly to his own work on the larvae of *Schistocephalus solidus*, *Diphyllobothrium* spp. and *Ligula intestinalis*, Smyth analyses the four main problems arising in the culture of pseudophyllids *in vitro*. (i) Asepsis has been achieved by employing standard bacteriological or tissue culture procedures and by the initial use of larvae (which occur in a sterile host environment) rather than adult worms. (ii) He discusses the establishment and maintenance of such conditions as pH, temperature and positional pressure. Seamless cellulose tubes have been successfully used in the culture of *S. solidus* eggs. (iii) A criterion for growth, as opposed to mere survival *in vitro*, has been satisfied by a technique for detecting cellular mitoses. The larva is transferred to the same type of medium in which it has been cultured, but to which colchicine has been added, and is incubated for two to four hours. This halts cell divisions in the metaphase and renders them easier to locate. Larvae are then placed in aceto-carmine for one or two hours and squashed in the usual way. The number of mitoses in a given number of fields serves as an approximate index of cellular division. (iv) The problem still remains of developing highly nutrient media for those stages in which much tissue synthesis is necessary before differentiation can take place.

M.MCK.

(914h) Scott gives reasons for concluding that *Diphyllobothrium cordiceps* is a different species from *D. latum*. Plerocercoids from the trout *Salmo clarkii lewisi* in Yellowstone Lake, Wyoming, were fed to young pelicans, *Pelecanus erythrorhynchos* and young gulls, *Larus californicus*, under controlled conditions during the course of nine years and *D. cordiceps* was always the species recovered. The naturally occurring tapeworms in these birds were also *D. cordiceps*. Using specimens from the pelican, Scott now redescribes the species in more detail than has been hitherto recorded and tabulates its main characters and those of *D. latum* from man and dog. *D. cordiceps* can be differentiated by several characters including a much shorter neck and the presence of 200 to 477 testes as compared with 824 to 1,285 (possibly more) in *D. latum*. Other evidence indicates that *D. cordiceps* is a separate species. The plerocercoids that abound in Yellowstone trout are usually encysted among the viscera whereas those of *D. latum* are found free in the flesh; although the trout of Yellowstone Lake are eaten in quantity by holiday-makers no human infections with *D. latum* have been recorded from that region.

M.MCK.

(914i) In this account of the 23 cyclophyllid species which Tarazona Vilas has found in wild and domestic animals and man in the province of Huesca in Spain, *Raillietina microacantha* is reported from *Alectoris rufa*, a new host, and *Mesocestoides lineatus* (from a dog) is recorded for the first time from Spain. One specimen of *Moniezia benedeni* had a dichotomous proglottis with duplication of the organs on one side. No anoplocephalid infections were observed in equines although the faeces of about 500 were sampled and several were examined at autopsy.

M.MCK.

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- j. DUBOIS, G., 1955.—“Nature de la spécificité chez les Strigeides (Trematoda).” Tomo Extraordinario, pp. 133-144. [English & Spanish summaries p. 143.]
- k. JOHRI, L. N., 1955.—“On a new genus and species, *Neyralla kotharia* of the sub-family Dipylidiinae Stiles 1896 (Cestoda) from Delhi State, India.” Tomo Extraordinario, pp. 165-172. [Spanish summary p. 171.]
- l. HICKMAN, V. V., 1955.—“On *Maritrema ornithorhynchi* sp.n., a new trematode from the monotreme, *Ornithorhynchus anatinus* Shaw, with a key to the genus *Maritrema* Nicoll.” Tomo Extraordinario, pp. 181-191. [Spanish summary p. 190.]
- m. GONZÁLEZ CASTRO, J., FERNÁNDEZ AMELA, T. & GUEVARA POZO, D., 1955.—“Comportamiento de la prueba de Suessenguth y Kline en sueros humanos y de animales afectos de diversas parasitosis.” Tomo Extraordinario, pp. 193-220. [English summary pp. 217-218.]
- n. GIBSON, C. L., 1955.—“Consideraciones sobre la alimentación de simúlidos antropofílicos en huéspedes humanos y animales, con referencia a estudios de la transmisión de la oncocercosis humana en Guatemala.” Tomo Extraordinario, pp. 307-311. [English summary p. 310.]

(914j) Dubois reviews the degree of specificity of different groups, genera and species of strigeids and lists under each order of avian hosts those species common to them. Two tables of the strigeid metacercariae and their fish hosts in Europe and North America show that specificity is not manifested by the metacercariae. The specificity of strigeids in birds appears to be due mainly to selective mechanisms working in the avian hosts, which mechanisms are probably chemical and associated with the action of the tribocytic organ of the parasites. In the strigeids of the Charadrii, however, specificity to the final host is chiefly the result of ecological selection.

M.MCK.

(914k) *Neyralla kotharia* n.g., n.sp. is described and figured from the kite *Milvus govinda* from India. It is characterized by a double crown of rostellar hooks, irregularly alternating genital pores, genital ducts which pass between the longitudinal excretory vessels, a saccular uterus and uniovular egg capsules. The testes are few and are located at the side of the female organs. A comparative chart is given of the chief characters of *Neyralla* and the allied genera of the Dipylidiinae.

M.MCK.

(914l) *Maritrema ornithorhynchi* n.sp. is described and figured from the platypus *Ornithorhynchus anatinus* from Tasmania. Its oesophagus is equal in length to that of the pharynx whereas in *M. humile*, the most closely related species, the oesophagus is five times as long as the pharynx. Hickman gives a key to the 20 species of *Maritrema*.

M.MCK.

(914m) When the Suessenguth & Kline test was performed on more than a hundred samples of sera from man, domestic and laboratory animals it was usually negative to the sera of animals not infected with trichinae, even if the animals harboured other helminths, and was usually positive to the sera of trichinous animals except in cases of recent infections. A pig heavily infected with *Trichuris trichiura* and another with a heavy *Physocephalus sexalatus* infection gave positive results although no trichinae were found in the flesh by direct examination and digestion. The highest titre was 1:128 in man and animals. Of 323 human sera obtained at the laboratory for various analyses, 20·12% were positive, confirming the high rate of trichinelliasis already indicated in Granada by previous work.

M.MCK.

(914n) Gibson, working in Guatemala on the transmission of human onchocerciasis, captured specimens of *Simulium* while they were feeding on one host and transferred them, after an interruption of an hour or two, to another species of host. Man was used as host in combination with cattle, horse or dog. In tests involving horses or cattle more than half the *S. callidum* and *S. metallicum* resumed feeding regardless of the hosts or the order in which they were offered. *S. ochraceum* freely accepted the second host when horse was involved but did not usually resume feeding in combinations of man and cattle. Although *S. ochraceum* showed a slight tendency to feed on dog after man, it was less willing to feed on man after dog. *S. metallicum* fed on man after beginning its feed on dog.

M.MCK.

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- o. ROMAN, E., 1955.—“Comportement des stades libres de *Strongyloides ratti* vis-à-vis de quelques variations du milieu.” Tomo Extraordinario, pp. 397-410. [English & Spanish summaries pp. 408-409.]
- p. PÉREZ VIGUERAS, I., 1955.—“Descripción de seis especies nuevas de trematodos de la familia Acanthocolpidae y división del género *Stephanostomum* en sub-géneros.” Tomo Extraordinario, pp. 421-441. [English summary p. 441.]
- q. VOGEL, H., 1955.—“Beobachtungen über einen alveolären *Echinococcus* bei süddeutschen Wildtieren.” Tomo Extraordinario, pp. 443-449. [English & Spanish summaries p. 449.]
- r. GONZÁLEZ DE VEGA, N., GÓMEZ-MORENO, C. & RODRÍGUEZ AGUILAR, M., 1955.—“Las enfermedades parasitarias broncopulmonares en Granada.” Tomo Extraordinario, pp. 451-458. [English summary p. 457.]

(914o) Although young larvae of *Strongyloides ratti* were killed by desiccation for five to seven hours at room temperature (15°C. to 20°C.), they withstood anaerobic conditions for six days at room temperature and for 48 hours at 27°C. A greater resistance to cold was observed than that which is known for larvae of *S. stercoralis*; considerable numbers of the rhabditiform larvae survived for three days at 5°C. and some persisted more than 11 days. By collecting rat faeces in water under the rat cages, the yield of *S. ratti* larvae in coprocultures was substantially increased.

M.MCK.

(914p) Six new species of *Stephanostomum* are described and illustrated from fish from Cuba. *S. mediovittarium* n.sp. from *Calamus bajonado* is characterized by 34 peribuccal spines, a long prepharynx 0.88 mm. long, a long cirrus sac 0.4 mm. long and vitellaria which are post-equatorial and behind the seminal vesicle. *S. lopezneyrai* n.sp. from *Anisotremus virginicus* has 26 to 28 peribuccal spines, a prepharynx 0.43 mm. long, large cuticular spines measuring about 30 μ , a long cirrus sac and tangential testes. The anterior testis and ovary are contiguous and the vitellaria extend forward to the seminal vesicle. *S. manteri* n.sp. from *Elaphotrox ruber* is distinguished from *S. cesticillum* by the presence of 38 peribuccal spines and vitellaria which lie entirely behind the seminal vesicle. The single specimen of *S. cubanum* n.sp. from *E. ruber* had 32 peribuccal spines, the ovary was well in front of the tangential testes and the vitellaria reached the hind border of the ovary. *S. microcephalum* n.sp. from *Elagatis bipinnulatus* differs from *S. ditrematis* chiefly in that the vitellaria overlap the posterior half of the seminal vesicle and that the testes are twice as large; this species is further differentiated from *S. robustum* by the position of the acetabulum 0.96 mm. from the cephalic end. *S. admicrostephanum* n.sp. from *Epinephelus mystacinus* differs from *S. microstephanum* in having about 70 to 80 peribuccal spines arranged in three irregular rows interrupted dorsally and ventrally and in that the oesophagus bifurcates half way between the anterior end and the acetabulum. *Stephanostomum* is divided into four new subgenera. (i) *Neostephanostomum* has more than, and the other subgenera have less than, 70 peribuccal spines. (ii) *Stephanostomum* is characterized by the uninterrupted arrangement of the peribuccal crowns and vitellaria. In (iii) *Schistostephanum* [this spelling occurs twice in the text of the paper but in the summaries it appears as *Schistostephanostomum*] the peribuccal crowns are interrupted ventrally and in (iv) *Critovitellarium* the vitellaria are interrupted in several places level with the gonads. *S. casum* and *Monorchistephanostomum gracile* are redescribed.

M.MCK.

(914q) *Echinococcus alveolaris* was found in three field-voles (*Microtus arvalis*) in the Swabian Jura (southern Germany), from the neighbourhood of villages where human infections with *E. alveolaris* have been found. A piece of the liver of this vole was fed to a dog from which about 1,000 *Echinococcus* adults were later recovered. Two of three *Vulpes vulpes* shot in one of the villages were also infected with *Echinococcus* and when eggs from these foxes were fed to several species of mammals, alveolar hydatids developed in *M. oeconomus raticeps* and in white mice. Vogel discusses the different hypotheses as to whether or no the two forms of hydatid which are found in man are the same species.

M.MCK.

(914r) In Granada, lung infiltration caused by *Ascaris* larvae is common and is correlated with the high incidence of *A. lumbricoides*. The only other lung disease of helminth origin found there is pulmonary hydatid, which the authors observed in only 35 of 70,000 individuals examined radiologically over a period of 20 years.

M.MCK.

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- s. GUEVARA POZO, D. & DOMÍNGUEZ MARTÍNEZ, J., 1955.—“Un nuevo caso en España de parasitismo humano por *Hymenolepis diminuta* (Rud. 1819).” Tomo Extraordinario, pp. 459–480. [English summary p. 479.]
- t. DOUGHERTY, E. C. & HALL, E. R., 1955.—“The biological relationships between American weasels (genus *Mustela*) and nematodes of the genus *Skrjabingylus* Petrov, 1927 (Nemotoda: Metastrengylidae), the causative organisms of certain lesions in weasel skulls.” Tomo Extraordinario, pp. 531–576. [Spanish summary p. 568.]
- u. GUEVARA POZO, D. & MONTEOLÍVA HERNÁNDEZ, M., 1955.—“Algunos datos experimentales sobre la acción amilásica de triturados de *Ascaridia galli* (Schrank, 1788) Freeborn, 1923.” Tomo Extraordinario, pp. 577–595. [English summary p. 594.]
- v. SIMÓN VICENTE, F., 1955.—“Nota previa sobre el ciclo experimental de un *Brachylaemus*.” Tomo Extraordinario, pp. 607–610. [English summary p. 610.]
- w. STUNKARD, H. W., 1955.—“The trematode genus *Asymphylodora*.” Tomo Extraordinario, pp. 633–644. [Spanish summary p. 642.]

(914s) This case, apparently the fourth recorded of human infection with *Hymenolepis diminuta* in Spain, is of a girl who passed 13 or more adult worms after treatment with the pulp of unpeeled pumpkin seeds and “taenifuge capsules of Moreno-Michel”. The eggs of the voided parasites had no polar projections. The rhythmical movements of the hooks of the oncosphere took place about seven or eight times a minute. M.MCK.

(914t) Dougherty & Hall examined 3,720 skulls of *Mustela erminea*, *M. frenata* and *M. rixosa*, from European and North American collections, for lesions attributable to *Skrjabingylus nasicola*. These lesions were rare in skulls from arid or extremely cold areas, but the incidence among those from temperate and very humid areas was high and reached 100% among the adult skulls from some localities. The geographical distribution, the incidence of lesions and the previous records of lesions or of *Skrjabingylus* worms in the different host subspecies examined, are tabulated. It is assumed that the intermediate host is a land mollusc. They review the systematics and known life-cycles of species of *Skrjabingylus*, assess the probable validity of the hosts recorded for *S. nasicola* and give an account, illustrated by maps, of the incidence and distribution of *Skrjabingylus* in *Mustela* in Russia and North America. Evidence of infection was found for the first time in the following subspecies of *M. erminea*: *M. e. semplei*, *M. e. invicta*, *M. e. salva*, *M. e. initis*, *M. e. celenda*, *M. e. seclusa*, *M. e. haidarum*, *M. e. fallenda*, *M. e. olympica*, *M. e. gulosa* and *M. e. muricus*. M.MCK.

(914u) The authors mixed a suspension of the pulped specimens of *Ascaridia galli* with aqueous starch solution and tabulated the amounts of glucose liberated at different temperatures and pH values and after varying periods of time. At the optimum temperature of 40°C. and the optimum pH of 6.4, 0.47 mg.–0.74 mg. of glucose were liberated per mg. of fresh worm after one hour. The digestive activity of the worm pulp decreased, the longer the lapse of time between the slaughter of the host and performance of the experiment. In the presence of cupric, zinc, ferrous, mercuric or lead ions the digestive activity diminished but it tended to increase slightly in the presence of sodium fluoride, sodium chloride, sodium bromide or the ions of strontium, calcium, magnesium or manganese. In parallel experiments using the pulp of pancreas of domestic fowl, the liberation of glucose was more markedly increased by the presence of the fluoride, chloride or bromide of sodium but the other metal ions had about the same effect. M.MCK.

(914v) When the cercariae and metacercariae frequently found in *Limax* and *Helix* in Salamanca, Spain were fed to several types of small animals, adult trematodes were recovered from white mice and domestic sparrows and were identified as *Brachylaemus* sp. The cercaria, metacercaria and adult are described. M.MCK.

(914w) Unencysted forms of juvenile and gravid *Asymphylodora* were found in the snails *Amnicola limosa* from ponds near Falmouth, Massachusetts, U.S.A., and small numbers of the same worm were occasionally seen in the fishes *Perca flavescens*, *Fundulus diaphanus*, *Micropterus dolomieu* and *Lepomis macrochirus* in the same ponds. Stunkard reviews the

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- x. RICCI, M., 1955.—“Il parassitosismo intestinale nella popolazione infantile di Lampedusa.” Tomo Extraordinario, pp. 645-651. [English & Spanish summaries p. 651.]
- y. BAER, J. G., 1955.—“Deux espèces nouvelles de cestodes chez l’outarde *Lophotis ruficristata* (Smith).” Tomo Extraordinario, pp. 653-657. [English & Spanish summaries p. 657.]
- z. FERRÓ, A., 1955.—“La hidatidosis en la cuenca del Mediterráneo.” Tomo Extraordinario, pp. 659-699. [English summary p. 699.]
- ba. PÉREZ FONTANA, V., 1955.—“Nuevos métodos biológicos aplicados al estudio de la epidemiología de la hidatidosis.” Tomo Extraordinario, pp. 701-712. [English summary p. 711.]
- bb. BEAVER, P. C., 1955.—“Observations on *Necator* infections resulting from exposure to three larvae.” Tomo Extraordinario, pp. 713-721. [Spanish summary p. 720.]

literature on *Asymphylodora* and remarks that there is no agreement concerning the limits of the genus and the number of its valid species. From his analysis of the literature on tailless cercariae he concludes that the absence of a tail is no indication of genetic relationship.

M.MCK.

(914x) *Enterobius vermicularis* was detected by Graham's adhesive tape method in 62·11% of 256 children from Lampedusa, Italy. Faecal examination of 109 children from the same island showed *Hymenolepis nana* in 28·44% and *Trichuris trichiura* in 8·26%. M.MCK.

(914y) *Raillietina (R.) neyrai* n.sp. and *Idiogenes mahonae* n.sp. are described from *Lophotis ruficrustata* from the Transvaal. *R. neyrai* has unilateral gonopores, median female glands which are surrounded on three sides by the 17 to 25 testes, a cirrus sac which contains a large cirrus and extends inwards to the ventral excretory canal and 24 to 26 uterine capsules per segment containing six to eight eggs each. This is the first species of *Raillietina* to be reported from a bustard. *I. mahonae* has two testes as compared with the smallest number of four to eight hitherto reported (for *I. kolbei*) in this genus.

M.MCK.

(914z) Ferro gives a general picture of hydatid disease in Spain, Portugal, France, Italy, Yugoslavia, Greece, Cyprus, Turkey, Lebanon, Syria, Transjordan, Palestine, Egypt, Libya, Algeria and French and Spanish Morocco. Its incidence is high in Spain, Italy, Yugoslavia, Greece and Algeria, while Corsica, Sardinia, Cephalonia and Cyprus are the most serious foci. Hydatid is now as severe in the Mediterranean countries as in South America and Australia. In the Middle East the human incidence is low relative to the incidence in animals and this, the author says, is due to the Moslem law which prohibits contact with the dog. In France hydatid disease is apparently regressing. Control measures have been started in Greece, Italy and Yugoslavia.

M.MCK.

(914ba) Pérez Fontana records observations on the staining reactions of live, dead or fixed hydatid scolices. He notes, for example, that whereas normal scolices stain violet under the action of gentian violet, toluidine blue, thionine and Unna's polychrome, with a gradual spread of colour inwards, dead scolices quickly stain a deep red. He points out that wasted attempts to infect animals with hydatid can be avoided by performing germination tests beforehand on the scolices. When oncospheres of *Echinococcus granulosus* were placed in water they developed a transparent halo during a period of hours; before the development of the embryo began, the dark spherical bodies in the oncosphere (which he considers analogous to the calcareous corpuscles of the scolex) migrated outwards to produce the chitinous vesicle, deriving the necessary material from the chitinous shell of the oncosphere.

M.MCK.

(914bb) When the skin of each of nine volunteers was exposed to three larvae of *Necator americanus*, all developed small skin papules and urticaria. Five subsequently passed eggs, but in one case these were infertile and were voided for seven months or less. The infections in the others persisted for more than two years. Egg counts indicated that in light infections a gravid female probably lays 20,000 to 50,000 eggs per day.

M.MCK.

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- bc. BACA PUERTA, A., 1955.—“Terapéutica de algunas parasitosis intestinales frecuentes.” Tomo Extraordinario, pp. 793-817. [English summary p. 815.]
- bd. CLAVERA ARMENTEROS, J. M., GUEVARA POZO, D. & THOMAS GÓMEZ, J., 1955.—“Modificaciones del agua y electrolitos en *Ascaridia galli* (Schrank 1788) Freeborn 1923, por influencias del medio de supervivencia *in vitro*.” Tomo Extraordinario, pp. 819-837. [English summary p. 837.]
- be. BURGOS, E., 1955.—“Parasitismo por oxiuros en el lactante.” Tomo Extraordinario, pp. 839-846. [English summary p. 846.]
- bf. TORRES LÓPEZ, A. J., 1955.—“Sobre la asociación parasitaria de Ascaris y Tricocéfalos.” Tomo Extraordinario, pp. 847-852. [English summary p. 852.]
- bg. IBÁÑEZ GONZÁLEZ, R. & GALLEGUO CAPILLA, J., 1955.—“Resultados parciales obtenidos en la investigación microbiológica de aguas residuales de la provincia de Granada.” Tomo Extraordinario, pp. 853-856. [English summary p. 856.]
- bh. MUÑOZ MEDINA, J. M., 1955.—“Actividad antihelmíntica de algunas plantas granadinas.” Tomo Extraordinario, pp. 857-862. [English summary p. 862.]

(914bc) This is a review of the anthelmintic properties of various substances used against *Ascaris*, *Enterobius* and *Trichuris*. M.MCK.

(914bd) The electrical conductivities of samples of water containing equal concentrations of pulped *Ascaridia galli* varied according to the time that the worms had been maintained in Ringer's solution. Ringer's solution was used in concentrations termed, by the authors, 4N (hypertonic), N and $\frac{N}{4}$ (both hypotonic). The conductivity of suspensions of worms (i) increased the longer the worms had been maintained in 4N Ringer's solution, (ii) tended to remain constant in the case of worms maintained in N Ringer, regardless of the period of immersion, and (iii) tended to fall the longer the worms had been kept in $\frac{N}{4}$ Ringer. The weights of the worms kept in 4N Ringer decreased but rose markedly in those kept in N or $\frac{N}{4}$ Ringer. It appeared that the ionic concentration within the worms was controlled to some extent, but the weight gains of the worms when placed in N Ringer's solution indicated that the absorption of water (plus ions) was not efficiently controlled. M.MCK.

(914bf) Torres López treated diarrhoea which he considered was caused by associated infection with *Ascaris lumbricoides* and *Trichuris trichiura* with 4 cg.-5 cg. of santonin (less to children) given for four or five days and followed by a mild laxative on the next day. This was repeated until the eggs disappeared from the faeces. M.MCK.

(914bg) The sewage effluents of three of 24 villages in the province of Granada, Spain contained viable eggs of *Ascaris lumbricoides*, one contained eggs of *Hymenolepis nana* and another contained larvae of *Strongyloides stercoralis*. M.MCK.

(914bh) Extracts of species of *Artemisia* were diluted at the rate of 1 gm. in 10 c.c. of Ringer's solution, and 0.5 c.c. to 4 c.c. of this mixture were diluted in a further 10 c.c. of Ringer's solution. The suspensions thus prepared of *A. absinthium* and *A. glutinosa* extracts had no effect or only a retarded effect on *Ascaridia galli* *in vitro* whereas extracts of *Artemisia herba-alba* at these concentrations killed the worms in one to four hours. Each extract was administered to domestic fowl in a solution containing the same amount of extract as the maximum used *in vitro*, or in a solution containing half this amount, and that of *A. herba-alba* was again the most efficacious; only one dead and one sluggish worm were recovered from two fowls six days later. M.MCK.

914—Revista Ibérica de Parasitología. (cont.)

- bi. SERRANO SÁNCHEZ, A., 1955.—“*Julinea granatensis* n.gn., n.sp. (Nematoda: Rhigonematidae), parásito intestinal de *Julus terrestris* L. en Granada.” Tomo Extraordinario, pp. 887-892. [English summary p. 890.]
- bj. TRAVASSOS, L., 1955.—“Sobre *Spectatus spectatus* Travassos, 1923 (Nematoda-Kathlaniidae).” Tomo Extraordinario, pp. 897-909. [English & Spanish summaries p. 909.]
- bk. SHOHO, C., 1955.—“Helminthic diseases of the central nervous system and intrauterine foetal infection by helminths. (Significance of histologic diagnosis in somatic helminthiasis).” Tomo Extraordinario, pp. 927-952. [Spanish summary pp. 946-947.]
- bl. GUEVARA POZO, D. & SUÁREZ PEREGRÍN, E., 1955.—“Acción *in vitro* del látex y otros zumos de *Ficus carica* sobre *Ascaridia galli*.” Tomo Extraordinario, pp. 953-969. [English summary p. 968.]

(914bi) *Julinea* n.g., a genus belonging to the Rhigonematinae, is provisionally created for *J. granatensis* n.sp. from the myriapod *Julus terrestris* in Granada. It has equal spicules and thus differs from *Severianoia*. Serrano Sánchez gives keys to the families of Oxyuroidea and genera of Rhigonematidae parasitic in myriapods.

M.MCK.

(914bj) Travassos redescribes, with illustrations, the nematode *Spectatus spectatus* (which he described in 1923) from *Colossoma brachypomum* and *C. bidens*.

M.MCK.

(914bk) Shoho gives a critical review of the role which nematode larvae, migrating in the central nervous system of mammals, can play in the aetiology of nervous diseases, either by direct trauma or by enabling infectious micro-organisms to enter from the blood stream. The frequency and importance of wandering nematode larvae in neurological disorders is not sufficiently known. The author also speculates on some of the types of ascarid life-cycles which might normally involve intrauterine infection. Observations of his own, or those of others, that calves one to two years old have both *Setaria digitata* and *S. marshalli* infections, whereas cases of intrauterine infection or of infection in calves under a year old have involved only *S. marshalli*, suggest that the life-cycle of *S. marshalli* may need uterine passage. Shoho illustrates with examples how different the tissue reactions can be to helminths in different animals and he urges a better understanding of tissue reactions so that lesions can be correlated with worms when the worms cannot be found.

M.MCK.

(914bl) When the latex of *Ficus carica* was suspended in water, in Ringer's solution or a buffer solution, at concentrations of 1:5 or 1:10 (the ratio indicates weight of plant tissue used, to volume of suspension fluid), it had a lethal digestive action on *Ascaridia galli* *in vitro* at a pH of 7 or 8. Only the lethal action, not the digestive action, was apparent when the pH was 5 or 6 or the suspension had been boiled for 15 seconds. It seemed that two constituents were operative, a thermolabile constituent having a digestive action which was lethal and a thermostable constituent having a lethal action only. The cellular fluid of the plant (obtained from tissue drained of latex) inhibited the lethal digestive action of the latex if added in the proportion of 1:3. If added in a smaller proportion (1:1) it only inhibited the digestive action.

M.MCK.

915—Revista do Instituto Adolfo Lutz. São Paulo.

- a. LUTZ, A., 1955.—“Bibliografia de Adolfo Lutz.” 15 (1), 19-32.
- b. DEANÉ, M. P., 1955.—“Adolfo Lutz, helmintologista.” 15 (1), 73-85.
- c. CARVALHO, J. C., 1955.—“*Mononchus risoceiae*, nova espécie (Nematoda, Mononchidae).” 15 (1), 129-134. [English summary pp. 133-134.]
- d. CINTRA, J. F. & RUGAI, E., 1955.—“Helmintiases entre escolares da cidade de Bauru.” 15 (1), 155-157. [English summary p. 156.]
- e. MACHADO, P. DE A., GUERRA, J. C. & ABREU, L. G. DE S., 1955.—“Planorbídeos no município de Campinas.” 15 (1), 168-172.
- f. CARVALHO, J. C., 1955.—“O nematóide das galhas no algodoeiro e em outros hospedeiros.” 15 (1), 173-179. [English summary p. 179.]
- g. CARVALHO, J. C., 1955.—“Plantas ornamentais parasitadas por espécies do gênero *Xiphinema*.” 15 (1), 180-185. [English summary p. 185.]

- h. AMATO NETO, V. & CORRÊA, M. O. A., 1955.—“Tratamento da ascaridíase pelo hidrato de piperazina.” **15** (1), 230–234. [English summary p. 234.]
 i. MACHADO, P. DE A. & ABREU, L. G. DE S., 1955.—“A ocorrência de furcocercárias em planorbídeos capturados no município de Campinas.” **15** (1), 235–240. [English summary p. 237.]

(915b) Deane recalls the pioneering work of Lutz in Brazil on the biology and problems of helminth diseases, particularly on schistosomes and hookworm. [For a complete list of Lutz's publications see *Rev. Inst. Adolfo Lutz*, **15**, pp. 19–32.] M.MCK.

(915c) *Mononchus (Iotonchus)* sp. Carvalho is now named by him *M. risoceiae* n.sp. His study of further specimens from pots [not plots as given in the English summary] of ornamental plants shows that the species differs from the related *M. brachylaimus* in the absence of rudimentary teeth, the smaller size of the pharynx, which is 0·055 mm. × 0·037 mm. in the male and 0·062 mm. × 0·052 mm. in the female, and the shorter length of the tail (the ratio of body length to tail length being 5·7–10·0 in the female and 8·2–9·7 in the male). The new species is longer than *M. tenuidentatus*, has a better developed pharyngeal tooth and a relatively shorter pharynx, the length of which does not equal twice its width. Nearly all the males and females contained ingested nematodes, more or less intact. M.MCK.

(915e) *Australorbis* was found in ten localities in the basin of the Anhumas river [São Paulo State], Brazil. This is apparently the first report of planorbids in the municipality of Campinas. Although 26,962 specimens were exposed to bright light and dissected, all were apparently free of *Schistosoma mansoni* infection. The existence of carriers of *S. mansoni* in Campinas, who have come from other Brazilian states, makes the presence of these planorbids alarming since the sewage of the town is poured without treatment into the Anhumas. M.MCK.

(915f) Carvalho has identified *Meloidogyne incognita* in cotton plants from Ribeirão Preto, São Paulo State, Brazil, in *Solanum* sp. from São Paulo and in *Leonotis nepetaefolius*, *Phaseolus vulgaris*, *Pelargonium* sp. and *Abutilon* sp. The number of plants attacked suggests that this nematode species is one of the most wide-spread and abundant in Brazilian soils. The ways in which it is carried from one locality to another are reviewed. M.MCK.

(915g) *Xiphinema americanum* and *X. ensiculiferum* were found during the examination of soil from gardens in the city of São Paulo and from pots of an unidentified ornamental plant. The females are figured and redescribed. No males were seen. In comparison with specimens reported from Ceylon, the larva of *X. ensiculiferum* had a conoid, rather than sub-digitate, tail and the female tail was more rounded at the tip. Other genera found were *Rhabditis*, *Dorylaimus*, *Diphtherophora*, *Eucephalobus*, *Cephalobus*, *Alaimus*, *Mononchus*, *Tripyla*, *Monhystera*, *Helicotylenchus*, *Aphelenchus* and *Aphelenchoïdes*. M.MCK.

(915h) A daily dose of 60 mg. per kg. body-weight of piperazine hydrate administered for five days to 22 patients with ascaris infections cured 63·63%, to 28 patients for seven days cured 89·28% and four patients who received two seven-day courses, with an interval of seven days between, were all cured. R.T.L.

(915i) Continuing their study of planorbids in Campinas, São Paulo State, Brazil [see abstract No. 915e above] Machado & Abreu have found on several occasions a cercaria in *Australorbis tenagophilus* which they describe as short-tailed, longifurcous, with pharynx and eye-spots. It is probably identical with *Cercaria caratinguensis*. M.MCK.

916—Revista de Investigación Clínica. Mexico.

- *a. CAMPUZANO, M. & ESESARTE, G. DE, 1955.—“Un caso de fascioliasis coledociana.” **7** (2), 187–189.

917—Revista Médica Hondureña.

- *a. GUTIÉRREZ LÓPEZ, R., 1955.—“Perforaciones intestinales por parásitos.” **23** (171), 805–817.

918—Revista de Medicina Veterinaria. Montevideo.

- a. RODRÍGUEZ GONZÁLEZ, M. & TRAMONTANO, R., 1955.—“Obstrucción del colédoco por *Ascaris suis*.” **8** (55), 36-38.
- b. BORAY, J., 1955.—“Investigaciones experimentales sobre la equinococosis de los animales domésticos, con especial atención a la equinococosis del perro.” **8** (55), 41-60.

(918b) [This is a translation of a paper published in German in *Acta Vet., Budapest*, 1954, **4**, 93-109. For abstract see Helm. Abs., **23**, No. 60c.]

919—Revista Paulista de Medicina.

- *a. FRANÇA NETO, A. S. & AMATO NETO, V., 1955.—“O líquido cefalorraquidiano na esquistosomose mansoni.” **46** (4), 274-281.
- b. CARVALHO E SILVA, T. L. DE, 1955.—“Um caso de provável localização pulmonar da esquistosomose mansônica.” **47** (5), 555-558. [English summary p.557.]

920—Revista do Serviço Especial de Saúde Pública. Rio de Janeiro.

- a. LOBATO PARAENSE, W., PEREIRA, O. & BUSTORFF PINTO, D., 1955.—“Um aspecto da ecologia do *Australorbis glabratus* que favorece a reinfestação dos criadouros.” **7** (2), 573-581. [English summary pp. 579-580.]
- b. COSTA, O. R. DA, MANCEAU, J. N., MAROJA, R. & ANDRADE, G. C. DE 1955.—“Observações sobre a ação do hexylresorcinol nas infestações por áscaris.” **8** (1), 201-204. [English summary p. 202.]
- c. MANCEAU, J. N., 1955.—“Aplicação na análise de covariância ao estudo comparativo de dois anti-helmínticos.” **8** (1), 205-219. [English summary p. 219.]
- d. COSTA, O. R., DA, 1955.—“Incidência de *Enterobius vermicularis* em 359 escolares de Belém, Pará.” **8** (1), 221-229. [English summary pp. 224-225.]
- e. COSTA, O. R. DA, AZEVEDO, M. C. DE & MAROJA, R. DE C., 1955.—“Inquérito parasitológico entre crianças, realizado em seis municípios da zona bragantina, Estado da Pará, em 1950.” **8** (1), 231-256. [English summary p. 241.]
- f. COSTA, O. R. DA, 1955.—“Observações sobre a ação do hexilresorcinol-metoquina e dessas drogas isoladas, nas infestações por ancilostomídeos, áscaris, tricocéfalos e oxiuros.” **8** (1), 257-269. [English summary pp. 267-268.]

(920a) *Australorbis glabratus* was found buried up to a depth of 40 cm. in mud and soil during trial treatments of snail habitats with sodium pentachlorophenate in Minas Gerais, Brazil. In 236 samples of mud taken just inside the water's edge Lobato *et al.* found 186 specimens and, from a further 180 samples of soil collected beyond the water's edge, they recovered 12 live specimens, three dead ones and 303 shells. M.MCK.

(920c) Anthelmintic treatment of 74 children with Aralen (chloroquine) or hexylresorcinol showed that the latter was more effective in reducing the number of eggs of *Ascaris lumbricoides* and hookworm in the faeces. M.MCK.

(920e) Faecal examinations of persons in the State of Pará, Brazil, showed hookworm in 91.6% of 3,018, *Ascaris lumbricoides* in 80.2% of 2,664, *Trichuris trichiura* in 55.1% of 1,817, *Enterobius vermicularis* in 3.9% of 129 and *Strongyloides stercoralis* in 3.5% of 116. *Tropicorbis centimetralis* and *Drepanootrema anatinum* were collected in the area. The finding of *T. centimetralis* is important in this region where immigrants converge from the endemic schistosomiasis areas of north-eastern Brazil. M.MCK.

(920f) Each of 150 individuals was treated with metoquina or hexylresorcinol or both drugs together. The dose of each anthelmintic was 800 mg. per person over 12 years of age and less for younger children. Hexylresorcinol and metoquina together were more effective than either drug alone in reducing the number of voided eggs of hookworm, *Ascaris lumbricoides* and *Trichuris trichiura*, and hexylresorcinol was more effective than metoquina in reducing the output of hookworm and *Ascaris* eggs. M.MCK.

921—Revista de Veterinaria Militar. Buenos Aires.

- a. MALIANDI, F. S., 1955.—“Estrongilosis gastro intestinal de los herbívoros.” **3** (12), 115-118, 120-124.

(921a) Maliandi gives a general account of the Strongylata which occur in herbivores and a key to the most important genera. He then deals in greater detail with the diagnosis (faecal concentration techniques and clinical signs), treatment and prophylaxis of the diseases they cause. He tabulates the estimated number of eggs produced per female per day for *Haemonchus contortus*, *Nematodirus filicollis*, *Ostertagia ostertagi*, *Cooperia curticei* and *Trichostrongylus colubriformis*, together with the survival time for the free-living larvae and the number of parasites necessary to produce disease in sheep. S.W.

922—Revue Médicale du Moyen-Orient.

- *a. LYS, P., ADÈS, J. & BADRE, Y., 1955.—“Essais sur l'action anthelmintique des graines de courge.” **12** (3), 339-340.
 *b. SOURNIA, J. C., 1955.—“La gravité de l'évolution spontanée des kystes hydatiques du poumon.” **12** (3), 341-344.

923—Revue Suisse de Zoologie.

- a. DUBOIS, G., 1955.—“Les trématodes de chiroptères de la collection Villy Aellen. Etude suivie d'une revision du sous-genre *Prosthodendrium* Dollfus 1937 (Lecithodendriinae Lühe).” **62** (3), 469-506.

(923a) Dubois has examined the Villy Aellen collection of trematodes from bats in the Swiss and French Jura. *Plagiorchis vespertilionis* was the commonest and occurred in nine host species. *Mesotretes peregrinus* was found in *Miniopterus schreibersi schreibersi* but occurred only twice. *Prosthodendrium* (*P.*) *ascidia* is redescribed and the morphology of these specimens is compared with published descriptions; Dubois concludes that *P. naviculum* Macy is a North American variety of *P. ascidia* and that Caballero's two species *P. scabrum* and *P. paeminosum* are synonyms of it. *P. (P.) chilostomum* is also redescribed and figured and *Lecithodendrium cordiforme laxmii* and *P. piriforme* are made synonyms; *P. oligolecithum* is regarded as valid. The genus *Prosthodendrium* is revised and a key is given to the 19 species regarded as valid. *L. cordiforme parvouterus* Bhalerao, 1926 is transferred to *Prosthodendrium* as *P. parvouterus* n.comb. and *L. cordiforme* Mödlinger, 1930 nec Braun, *P. pushpai*, *P. cordiforme* Bhalerao, 1936 nec Braun, *P. pyramidum orientale* Yamaguti & Asada, 1942 nec Looss and *P. pyramidum maroccana* Dollfus, 1954 nec Looss are regarded as synonyms of *P. parvouterus*. *P. bhaleraoi* is made synonymous with *P. longiforme* and the variety *P. longiforme allahabadi* is suppressed. *P. loossi* and *P. luxonicum* are reduced to the rank of varieties of *P. urna* and *P. orospinosum* respectively. *P. mizellei* is made a synonym of *P. macnabi*. *P. posticum* and *P. lilliputianum* remain as species inquirendae. S.W.

924—Revue de Zoologie et de Botanique Africaines.

- a. FAÏN, A., 1955.—“Recherches sur les schistosomes d'oiseaux au Ruanda-Urundi (Congo belge). Découverte d'une nouvelle bilharziose aviaire: la trichobilharziose nasale, et description de schistosomes nouveaux. Note préliminaire.” **51** (3/4), 373-387.
 b. FAÏN, A., 1955.—“Un nouveau schistosome du crabe de Madagascar (*Ardeola idae* Hartl.). *Gigantobilharzia ardeolae* n.sp.” **52** (1/2), 97-100.

(924a) Fain describes (but does not figure) seven new species of schistosomes from aquatic birds in the region of Ruanda-Urundi (Belgian Congo). Four of these species occurred in the liver or mesenteric veins, whereas the remaining three (all species of the genus *Trichobilharzia*) were found only in the venous network of the nasal cavities. Nasal trichobilharziasis of birds is a new syndrome, described for the first time. It is apparently frequent among members of the duck family. The seven new species are: (i) *Ornithobilharzia baeri* n.sp., from the portal and mesenteric veins of *Phalacrocorax africanus*; (ii) *Trichobilharzia schoutedeni* n.sp., from the liver and mesenteric veins of *Thalassornis leuconotus*; (iii) *Trichobilharzia*

berghei n.sp., from the portal system of *Anas undulata undulata*; (iv) *Trichobilharzia anatina* n.sp., from the portal system of *A. u. undulata*; (v) *Trichobilharzia rodhaini* n.sp., from the small veins of the nasal cavities of *Hagedashia hagedash*; (vi) *Trichobilharzia nasicola* n.sp., from the veins of the nasal mucosa and submucosa of *A. u. undulata*; and (vii) *Trichobilharzia spinulata* n.sp., from the nasal cavities of *Alopochen aegyptiacus* and *Plectropterus gambensis*. The differential characters of these seven species are not given, but a key is provided for the separation of the six new species of *Trichobilharzia* which, however, does not include the previously established species of the genus.

J.M.W.

(924b) Fain describes and figures a new species of *Gigantobilharzia*, *G. ardeolae* n.sp., from the superior vena cava of *Ardeola idae*. The new species is distinguished from *G. acotylea* by its much smaller size; from *G. huronensis* by its greater size; from *G. lawayi* by its greater size and shorter gynaecophoric canal; and from the remaining species of the genus by the presence of a gynaecophoric canal and the absence of a ventral sucker.

J.M.W.

925—Rivista di Anatomia Patologica e di Oncologia.

- a. BARUFFALDI, O. & ZAVA, P., 1955.—“Contributo anatomo-istologico allo studio della cisticercosi cerebrale.” **9** (5), 593-607. [German summary p. 606.]

926—Rivista di Zootecnica.

- a. LUCIFERO, M., 1955.—“La fenotiazina nella terapia delle parassitosi gastro-intestinali del bestiame.” **28** (4), 130-131.

927—Roczniki Nauk Rolniczych. Seria E. Weterynarii.

- a. STEFAŃSKI, W., 1955.—“Badania nad leczeniem robaczycy płucnej owiec. I. Leczenie płynem Lugola.” **67** (2), 201-221. [English & Russian summaries pp. 217-221.]

(927a) To find why more than one quarter of the sheep remain infected with lungworms after intratracheal injections of Lugol's solution at the recommended dose of 10-15 ml., Stefański, using soot suspensions for the intubation, showed that the solution is not evenly distributed in the lung and does not reach the apical lobes. Considering this dosage too small, he tried larger doses (two injections of 30 ml.) which did not, however, increase the efficiency but considerably increased mortality.

G.I.P.

928—Säugeterkundliche Mitteilungen.

- a. MENDHEIM, H., 1955.—“Ein Fuchs, *Vulpes v. crucigera* (Bechstein, 1798), mit Massenbefall von *Echinococcus*.” **3** (1), 10-12. [English summary p. 12.]

(928a) Mendheim reports a case of massive *Echinococcus* infection in the small intestine of a fox which had been shot in Upper Bavaria. It is estimated that 150,000 parasites were present. A list of known intermediaries is given and the author records a case of hydatid in a lion, thought to be a new host record.

A.E.F.

929—Sborník Československé Akademie Zemědělských Věd. Zivočišná Výroba a Veterinární Medicina.

- a. ZAVADIL, R., 1955.—“Příspěvek k diagnostice a klinice cizopasníka *Syngamus merulae*.” **28** (2), 125-132. [English & Russian summaries pp. 131-132.]
- b. GMITTER, J., 1955.—“Štúdium biologických a morfologických vlastností parasita-motolice *Echinoparyphium recurvatum* a infekciovitza u laboratórnych cicavcov.” **28** (4), 295-312. [German & Russian summaries pp. 311-312.]
- c. LUCKÝ, Z., 1955.—“Příspěvek k bionomii, pathogenitě a rozšíření cizopasných žábrohlístů na jižní Moravě.” **28** (5), 433-440. [German & Russian summaries p. 440.]
- d. LEBDUŠKA, J., ŠIMUNEK, J. & ČERNOHOUS, J., 1955.—“Studium použitelnosti fluorokremičitanu sodného v léčbě askaridosy u prasat.” **28** (6), 405-422 [499-516]. [German & Russian summaries pp. 420-422.]

- e. DUCHAJ, J., 1955.—“Regionálny výskyt plúcnych červov u hovädzieho dobytka, oviec, ošípaných a vysoké ratičkovej zvere v okolí Martina.” **28** (11), 827-834. [German & Russian summaries pp. 833-834.]
- f. DYK, V., LUCKÝ, Z. & ŠTĚDRONSKÝ, E., 1955.—“Hlístice *Raphidascaris acus* v našich mníčích.” **28** (11), 887-890. [English, German & Russian summaries p. 890.]
- g. SLANINA, L., POPLUHÁR, L. & VRZGULA, L., 1955.—“K terapii fasciolózy oviec, kôz a hovädzieho dobytka.” **28** (12), 923-940. [English, German & Russian summaries pp. 939-940.]

(929a) Zavadil found that *Syngamus merulae*, commonly occurring in blackbirds and thrushes in the district of Brno, was responsible for outbreaks of syngamiasis in chickens. He gives a description of *S. merulae* and some of the details of its morphology are compared, in a table, with *S. trachea*. The eggs of both these species are alike and it is not possible to differentiate between them during faecal examination.

C.R.

(929b) Gmitter found that *Limnaea peregra* was naturally infected with metacercariae of *Echinoparyphium recurvatum* in Adamova, Babice and Orlovice. He infected pigeons with these metacercariae and obtained eggs in the faeces and adults of *E. recurvatum* in the alimentary canal. The author studied the life-history in the snail. The eggs develop miracidia (at 20°C. to 23°C.) and are ready to hatch in four weeks; they penetrate into the snail and produce rediae after 7-21 days, depending on the temperature. There are also daughter rediae which produce cercariae. These enter the same or other snails where they become encysted in the pericardial sac. He infected experimentally pigeons, rabbits, guinea-pigs, mice and rats, but was only successful in the first two.

C.R.

(929c) Lucký gives the results of an investigation of the monogenetic trematodes of fish in pools of the river Dyje in the district of Podivina. On carp he found *Dactylogyrus anchoratus*, *D. solidus*, *D. wegeneri* and *D. vastator*; on *Carassius*, *Gyrodactylus elegans*, *D. anchoratus*, and on the river lamprey, *G. elegans*, *D. anchoratus* and *Ancyrocephalus cruciatus*. The author tabulates the fish examined and the monogenetic flukes so far found in them, both by himself and other workers, in various districts of Moravia.

C.R.

(929d) The authors compared *in vitro* efficacy of sodium fluoride and sodium silico-fluoride against *Ascaris lumbricoides*, and found that sodium silico-fluoride was 100% effective while sodium fluoride was only 53.3%. It was found that sodium silico-fluoride was more toxic to rats and, when administered to pigs was also found to be more toxic than sodium fluoride and the anthelmintic efficacy was also lower.

C.R.

(929e) Duchaj reports the results of his survey of lungworms in cattle, sheep, pigs and red deer in the district of Martina. He examined 692 cattle and found 24 infected with *Dictyocaulus viviparus*. Of 700 sheep it was found that 538 (76.85%) were infected, with *D. filaria* (13.85%) and with *Muellerius capillaris* (7.28%) or with both (55.07%), and out of 105 red deer 52 were infected with *D. filaria* (7.61%), some with *D. viviparus* (17.42%) and with both (23.8%). Pigs were found to be free from lungworms.

C.R.

(929f) This is the first record in Czechoslovakia of *Raphidascaris acus* in the small intestine of *Lota lota*.

C.R.

(929g) This paper deals with extensive clinical and field trials with carbon tetrachloride given *per os* and *per cutem* in the treatment of fascioliasis in sheep, goats and cattle. The authors found that treatment of sheep with carbon tetrachloride *per os* (2-2.5 ml.), particularly when accompanied with calcium preparations, magnesium sulphate and linseed infusion, gave good results. They also used carbon tetrachloride subcutaneously in sheep and goats (dose 2-3 ml.), in single injection, and in cattle (10-20 ml.) injected into four places, with good results. This treatment was followed by hypocalcaemia, reaching a peak on the fourth day after treatment in chronic fascioliasis. The authors came to the conclusion that the subcutaneous introduction of carbon tetrachloride provides a more practical and effective and easier method of treatment.

C.R.

930—Sborník Vysoké Školy Zemědělské a Lesnické Fakulty v Brně. Řada A. Spisy Fakulty Agronomické a Zootechnické.

- a. TENORA, F. & BARUŠ, V., 1955.—“Cysticercus taeniae taeniaeformis—vážný cizopasník našich ondatér.” Year 1955, No. 2, pp. 143–146. [German & Russian summaries p. 146.]

(930a) The authors report on the death of a musk-rat in a village in Moravia due to the presence of 315 cysticerci of *Taenia taeniaeformis* in the liver and, describing the cysticerci, briefly explain the possibility of infection of the musk-rat and measures for its prevention.

G.I.P.

931—Scandinavian Journal of Clinical and Laboratory Investigation.

- a. GRÄSBECK, R., 1955.—“Determinations of glandular mucoprotein in the gastric juice of patients with pernicious tapeworm anaemia.” 7 (2), 195–196.

(931a) Gräsbeck measured the glandular mucoprotein in the gastric juice of patients with pernicious tapeworm anaemia in test-meal samples taken at 15-minute intervals after the injection of insulin. The values, which it has been suggested, might be related to the amounts of intrinsic factor, ranged from 292 mg. per 100 ml. to 0.

W.P.R.

932—Schweizer Archiv für Tierheilkunde.

- a. LANG, E. M., 1955.—“Beitrag zur Frage der Trichinose und der Selbstverstümmelung bei Zootieren.” 97 (5), 246–251. [French, Italian & English summaries pp. 250–251.]
 b. KREIS, H. A., 1955.—“Beiträge zur Kenntnis parasitischer Nematoden. XVIII. Das Genus *Probstmayria* Ransom, 1907.” 97 (9), 422–433. [English, French & Italian summaries p. 433.]

(932a) Lang records trichinelliasis in two polar bears and one tiger in zoos in Switzerland. It is thought that allergic reactions set up by the infection caused severe itching and that scratching by the animals caused injuries to the skin and hair. A second tiger showed no clinical symptoms but at post-mortem was found to have a heavy *Trichinella* infection. The source of infection is thought to be dog flesh.

A.E.F.

(932b) Kreis describes and figures *Probstmayria gorillae* n.sp. from *Gorilla gorilla* and *Hylobates concolor* in the Basle Zoo. The emended description of the genus necessitated by the new species makes it impossible to retain it in the subfamily Oxsomatiinae and the new subfamily Probstmayriinae is created for it. The new species is distinguished from *P. vivipara* by its smaller size and by the structure of the anterior end and of the male gonads. *P. gorillae* is thought to be not directly pathogenic: the life-cycle is direct.

A.E.F.

933—Science Reports of the Azabu Veterinary College, Japan.

- a. ITAGAKI, S. & ITAGAKI, H., 1955.—“Anatomical and ecological studies on *Lymnaea ollula* Gould, 1859, as the snail intermediate host of the liver fluke, including the relation to the prevalence of fascioliasis.” No. 2, pp. 1–16. [Japanese summary p. 13.]
 b. MASU, S., 1955.—[Studies on the protein and polysaccharide antigens of *Fasciola hepatica*.] No. 2, pp. 69–78. [In Japanese: English summary p. 78.]

934—Semaine des Hôpitaux de Paris.

- a. HARTMANN, L., 1955.—“La distomatose hépatique. Diagnostic et traitement.” 31 (35), 2055–2057.
 b. MANDOUL, R., EISENBETH, R., PESTRE, A. & PESTRE, M., 1955.—“Un cas de cysticercose sous-cutanéo-musculaire humaine.” 31 (50/51), 2734–2736.
 c. CAROLI, J. & PARAF, A., 1955.—“Traitement des kystes hydatiques par des injections de thymol iodé (méthode de Cuervo).” 31 (71), 3810–3812.

935—South African Medical Journal.

- a. MAIZELS, G., 1955.—“Hydatid disease of the Fallopian tubes.” 29 (36), 829–830.

936—Speculum.

- a. KOUTZ, F. R., 1955.—“Gamma rays and the trichinosis cycle.” **8** (3), 29-31.

937—Srpski Arhiv za Tselokupno Lekarstvo. Belgrade.

- a. PERIŠIĆ, M. & SRETENOVIĆ, M., 1955.—[The study of echinococci in the human brain.] **83** (7/8), 747-752. [In Serbian: English summary p. 752.]
- b. LITRICIN, T., 1955.—[Differential diagnosis of echinococcosis of the lungs.] **83** (9), 969-979. [In Serbian: English summary p. 979.]

938—Stain Technology.

- a. BERGAN, P., 1955.—“Aceto-orcein and Feulgen stains for anatomy and cytology of trematodes.” **30** (6), 305-310.

(938a) Bergan has found that both aceto-orcein and Feulgen's stain are very satisfactory for whole mounts of trematodes. Using *Fasciola hepatica* and *Dicrocoelium dendriticum* the author has shown that they can be killed in an extended condition, fixed and stained in one operation by dropping into aceto-orcein, and that squash preparations of testes or of the upper parts of the uterus can be made after as long as two months in the fluid. For Feulgen staining, living flukes are put into 40% acetic acid for 10-15 minutes and then transferred to Gilson's fluid (for sections) or acetic-ethanol 1:3 for squashes. Details of the techniques are given and the paper is illustrated by photomicrographs.

S.W.

939—Studii si Cercetări de Inframicrobiologie, Microbiologie si Parazitologie. Bucharest.

- a. DINULESCU, G., STOENESCU, D., MĂNOIU, I., RAUCHBACH, C., DRĂGOIU, I., DONCIU, I. & FRUCHTER, J., 1955.—“Cercetări asupra piperazinei ca antihelmintic în ascaridoză, anchilostomoză și trichuroza la cîine.” **6** (1/2), 285-293. [French & Russian summaries pp. 291-293.]
- b. DINULESCU, G., STOENESCU, D., MĂNOIU, I., ILIE, I., VIŞAN, C., TEODORU, M., RAUCHBACH, C., NEGRU, I. & LOVIN, D., 1955.—“Piperazina ca antihelmintic în parascarioză, oxiuroză și strongiloză la cai.” **6** (1/2), 295-300. [French & Russian summaries pp. 299-300.]
- c. DINULESCU, G., STOENESCU, D., RAUCHBACH, C., MĂNOIU, I., NEGRU, D., DONCIU, I., DRĂGOIU, I. & LOVIN, D., 1955.—“Observații asupra elementelor de invazie în parazitoze la cîini.” **6** (3/4), 587-593. [French & Russian summaries pp. 592-593.]
- d. SORESCU, A., PANAITESCU, D., SOLOMON, P., HACIG, A. & BELLU, C., 1955.—“Cercetări helmintologice în cartierul Ostrov-București.” **6** (3/4), 605-619. [French & Russian summaries pp. 617-618.]

(939a) The authors have found piperazine at a dose rate of 0.08 gm. to 0.12 gm. per kg. body-weight, mixed with water and given orally in 100 gm. of milk, to be very effective against ascarids in dogs. The dogs should be starved for 12-24 hours beforehand and given an oily purgative two hours after dosing. The same treatment should be repeated five to six days later. Piperazine was less effective against *Ancylostoma caninum* and *Uncinaria stenocephala* and had almost no effect on *Trichuris vulpis*. Thymol was more efficacious against hookworms.

S.W.

(939b) The authors have found piperazine to be very effective against *Parascaris* and *Oxyuris* in horses. They recommend a dose of 0.1 gm. to 0.12 gm. per kg. body-weight in two to three litres of water administered by naso-pharyngeal sound and followed by a purgative; the treatment is repeated twice more at intervals of six days. The activity against *Trichostrongylus*, Strongylinae and Trichoneminae was much less marked. No side effects were observed.

S.W.

(939c) In a survey of parasites of dogs, the authors found many passing eggs of *Ascaris lumbricoides*. Other helminths rarely found in dogs or not previously reported for this host were *Apophallus mühlungi*, *Passalurus ambiguus*, *Capillaria hepatica* and *Nematodirus filicollis*.

S.W.

(939d) Faecal examinations of 1,501 inhabitants (84·4% of the total population) of the Ostrov district in Bucharest revealed helminths in 53·5%. *Ascaris* and *Trichuris* were the predominant species. The symptoms observed in the children are described. In 97·6% of 122 helminth carriers the eosinophilia varied between 4% and 22% and this was associated in 41% of these cases with a lymphocytosis between 30% and 48%. The ways in which these parasites are spread are discussed.

S.W.

940—Surgery, Gynecology and Obstetrics. Chicago.

- a. DIMMETTE, R. M., SAYEGH, E. S. & SPROAT, H. F., 1955.—“Chronic ulcer of the bladder associated with schistosomiasis.” **101** (6), 721–731.

941—Suvremenna Meditsina. Sofia.

- *a. VAPTSAROV, I., MIKHOV, K. H. & PIRONKOVA, M., 1955.—[A case of paragonimiasis.] **6** (2), 103–106. [In Bulgarian.]
- *b. KRUSTEV, D. & ARNAUDOV, G., 1955.—[A case of cardiac and cerebral echinococcosis.] **6** (3), 88–91. [In Bulgarian.]
- *c. KAMBUROV, I., TOMOV, L. & VLADIMIROV, V., 1955.—[A case of echinococcosis of the heart.] **6** (3), 91–96. [In Bulgarian.]
- *d. GENOV, G. M. & NENOV, S. D., 1955.—[Effect of ascariasis on childhood.] **6** (5), 48–52. [In Bulgarian.]
- *e. OVCHAROVA, P. & ZOGRAFSKI, B., 1955.—[Distomiasis of the brain.] **6** (6), 3–14. [In Bulgarian.]
- *f. UZUNOV, N. & SHILEV, P., 1955.—[Cerebral cysticerciasis localized in the third ventricle and its interpretation according to the Pavlovian theory.] **6** (6), 109–112.
- *g. MILOSHEV, B., 1955.—[Unusual case of associated *Dipylidium caninum* and *Hymenolepis diminuta* infections.] **6** (9), 94–96. [In Bulgarian.]

942—Svenska Läkartidningen.

- *a. LUNDBERG, U., 1955.—“Oxyzin mot oxyuriiasis jämte en översikt av aktuella anthelmintica mot nematoder.” **52** (8), 469–480.

943—Texas Reports on Biology and Medicine.

- a. WESTBROOK, M. G. & SCOTT, J. A., 1955.—“A statistical analysis of the growth in length of the filarial worms in the cotton rat.” **13** (3), 537–558.
- (943a) [For abstract of authors' abstract of this paper see Helm. Abs., **23**, No. 274s.]

944—Tórax. Montevideo.

- a. PÉREZ DAVANT, D. C., 1955.—“Las secuelas hidáticas cavitarias.” **4** (3), 205–214. [English & French summaries p. 213.]

945—Transactions of the Idaho State Horticultural Society.

- *a. THORNE, G., 1955.—“Nematodes associated with slow decline, or dieback, of orchards in Idaho.” Year 1955, pp. 11–12.

946—Transactions of the Kansas Academy of Science.

- a. AMEEL, D. J., 1955.—“Parasites of the coyote in Kansas.” **58** (2), 208–210.
- b. CASE, A. A., 1955.—“Nematodes from silos in Missouri.” **58** (3), 347–352.

(946a) Ameel examined the stomachs and intestines of 1,142 *Canis latrans*, the caeca of 63 and the hearts of 954 in Kansas. Of the helminths found *Taenia pisiformis* was the commonest occurring in 92·8%; *Dipylidium caninum* was found in only three animals. *Physaloptera* occurred in 60·4% and *Ancylostoma caninum* in 19·8%; *Toxascaris leonina* was present in 19·3% but *Toxocara canis* was not recovered. *Trichuris vulpis* (present in seven of 63 caeca) and *Dirofilaria immitis* (in eight of 954 hearts) are recorded from this host for the first time.

S.W.

(946b) *Rhabditis terricola*, a hermaphrodite species of *Rhabditis* (possibly new), a species of *Rhabditella* (also possibly new), a species of *Cylindrocorpus*, a species of *Bunonema* (distinct from *B. inequale*) and another species of rhabditoid nematode, which conformed most closely to *Tricephalobus*, were found in ensilage from silos in Missouri. Large numbers of *Rhabditis terricola* were also recovered from larvae of the south-western cornborer in the same area; but it was not determined whether this was primary parasitism or secondary invasion as a scavenger.

J.M.W.

947—Transactions of the North American Wildlife Conference.

- a. HARPER, T. A., RUTTAN, R. A. & BENSON, W. A., 1955.—“Hydatid disease (*Echinococcus granulosus*) in Saskatchewan big game.” 20th (1955), pp. 198–207. [Discussion pp. 207–208.]

(947a) An attempt was made to collect all the species of big game in Saskatchewan, Canada, to determine whether hydatid was present in the lungs and liver. Twenty-nine out of 96 moose, three out of 14 barren ground caribou and two white-tailed deer out of 28 deer were found infected. Two elks and seven antelopes were negative. No adult *Echinococcus granulosus* were found in two dogs, two coyotes and two red foxes, *Vulpes fulva*, and it is noted that Ruttan in 1951 (unpublished data), who examined 44 coyotes and one red fox from the farming region of south-central Saskatchewan, also failed to find *E. granulosus*. M.MCK.

948—Trudi Gruzinskogo Nauchno-Issledovatel'skogo Veterinarnogo Instituta.

- a. PETROV, A. M. & CHUBABRIYA, I. T., 1955.—[Occurrence of *Dracunculus medinensis* L., 1758 in the subcutaneous tissue of a cat in the Georgian S.S.R.] **11**, 231. [In Russian.]
- b. CHUBABRIYA, I. T., 1955.—[The effectiveness of tin arsenate in *Moniezia* infection of sheep.] **11**, 233–240. [In Russian.]
- c. GUGUNISHVILI, N. S. & ROSTOMASHVILI, A. P., 1955.—[Analysis of the effectiveness of emetine in *Dicrocoelium* infection of sheep.] **11**, 241–242. [In Russian.]
- d. CHUBABRIYA, I. T. & GUGUNISHVILI, N. S., 1955.—[Experiments with phenothiazine in *Ascaris* infection of pigs.] **11**, 243–246. [In Russian.]
- e. GUGUNISHVILI, N. S., 1955.—[Trials with tin arsenate in helminth infestations of fowls.] **11**, 271–273. [In Russian.]
- f. CHUBABRIYA, I. T. & GODERDZISHVILI, G. I., 1955.—[Experiments on the use of tin arsenate in infestation of sheep with *Thysamiezia ovilla* (*Thysanosoma ovillum*).] **11**, 275–279. [In Russian.]

(948a) A specimen of *Dracunculus medinensis* was found for the first time in the subcutaneous tissue of a cat in Tiflis. This is the first report of dracontiasis from Europe. G.I.P.

(948b) Tin arsenate proved the most effective of 50 drugs tested against *Moniezia* infections in sheep. Given orally as an aqueous suspension, or preferably in gelatin capsules, in doses of 0·3 to 0·5 gm. per animal it cured 57 lambs aged three to five months, which had been kept for 18 hours on a starvation diet and had received no water on the day of treatment. Doses of up to 1 gm. were harmless. The majority of the worms, both young and mature stages, were passed in the first 24 hours. This anthelmintic considerably restricts the possibility of reinfection and is cheap. G.I.P.

(948c) Two subcutaneous or intramuscular injections of 0·002–0·004 [gm.] per kg. body-weight of emetine in 1% aqueous solution, although harmless, had no effect on *Dicrocoelium dendriticum* and *Fasciola hepatica* in sheep. Intravenous injections were lethal. G.I.P.

(948d) The authors tested phenothiazine against *Ascaris* in 70 young pigs in doses ranging from 0·3 to 1·2 [gm.] per kg. body-weight given mixed in food after 16 to 24 hours' starvation. The higher doses were spread over the day, the smaller doses were repeated in a number of pigs on three consecutive days. Only 33·7% of the pigs passed worms, none were cured and autopsy of 13 showed that about a third of the worm burden had been removed. G.I.P.

(948e) Tin arsenate, as powder or in gelatin capsules, given orally after 18 to 20 hours starvation in doses of 0·15 gm. per bird was 100% efficient against *Ascaridia* and cestode infections in 87 domestic fowls. G.I.P.

(948f) In a first experiment on ten sheep infected with *Thysaniezia ovilla*, which received 0·5 to 1·2 gm. of tin arsenate, the lowest fully effective dose was 0·7 gm. Using 0·7 gm., a further 20 sheep were treated and only 18 cured. The intensefficacy was 97·5%. The anthelmintic, in gelatin capsules, was given after 18 hours' starvation and no water on the day of treatment. All the doses used were harmless. Most of the worms, both young and mature forms, were passed in the first 24 hours.

G.I.P.

949—Trudi Instituta Veterinarii. Akademiya Nauk Kazakhskoi SSR.

- *a. SHULTS, R. S. & DAVTYAN, E. A., 1955.—[The problem of the host-parasite specificity.] **7**, 135–153. [In Russian.]
- *b. SHULTS, R. S. & DAVTYAN, E. A., 1955.—[Reservoir parasitism, its biological and practical significance.] **7**, 154–166. [In Russian.]
- *c. BOEV, S. N., 1955.—[On the scientific importance of veterinary reporting on verminoses.] **7**, 167–179. [In Russian.]
- *d. SHULTS, R. S. & BONDAREVA, V. I., 1955.—[The primary (natural) immunity of coenuriasis and other larval cestodiases.] **7**, 208–224. [In Russian.]
- *e. POTSELUEVA, V. A., 1955.—[The significance of the factor of invasion and immunity intensity of cysticerciasis of rabbits.] **7**, 225–251. [In Russian.]
- *f. ERMOLOVA, E. N., 1955.—[The practice of using phenothiazine-feed mixture in the winter-spring period to rid sheep of strongyloidiasis in southern Kazakhstan.] **7**, 268–277. [In Russian.]
- *g. MUKHAMETALIN, K. D., 1955.—[The use of phenothiazine-salt mixture in winter for the prevention of gastro-intestinal strongyloidiasis of sheep.] **7**, 278–282. [In Russian.]
- *h. SATUBALDIN, K., 1955.—[The helminths of sheep and goats in the high altitude Karkary-Kegen Valley (Kegen district, Alma-Ata region).] **7**, 283–313. [In Russian.]
- *i. SHUMILINA, Z. V., 1955.—[Helminth fauna of camels in West Kazakhstan region.] **7**, 314–318. [In Russian.]
- *j. ANDREEVA, N. K., 1955.—[Revision of the morphology of Trichostrongylidae of ruminants, *Cooperia oncophora*, and the diagnostic significance of the accessory pieces in Trichostrongylidae.] **7**, 319–326. [In Russian.]

950—Trudi Leningradskogo Sanitarno-Gigienicheskogo Meditsinskogo Instituta.

- *a. AGRANOVSKI, Z. M., 1955.—[Problem of epidemiology and prevention of *Diphyllobothrium* infection in fishing areas.] **25**, 127–167. [In Russian.]

951—Tuinbouwberichten.

- *a. DAELS, F., 1955.—[Nematodes of strawberries.] **19**, 219–220. [In Flemish.]

952—Tunisie Médicale.

- a. KOSKAS, R. & PIÉTRI, S., 1955.—“Un cas de kyste hydatique de la rate.” **43** (6), 621, 623.

953—Türk Tıp Cemiyeti Mecmuası. (Bulletins de la Société Turque de Médecine.)

- *a. ZEYTINOGLU, I., 1955.—“Husuiyet arzeden bir akciger hidatik kisti vak’ası.” [Detachment of hydatid cyst.] **21** (4), 168–171.
- *b. GÜRKAN, K. I., 1955.—“Splenektomi ile tedavi edilmiş bir dalak hidatik kisti münasebetile.” [Splenectomy in the treatment of hydatid cyst of the spleen.] **21** (9), 453–462.

954—Ukrainski Biokhimichni Zhurnal.

- a. MAKAREVICH-GALPERIN, L. M. & DUNAEVA, V. F., 1955.—[Effect of ethereal oils and of certain of their fractions on dehydrogenase activity in *Paramecium* and *Ascaris suum*.] **27** (2), 197–206. [In Ukrainian: Russian summary pp. 205–206.]

(954a) To study the biochemical character of the antibiotic activity of ethereal oils, the authors have examined their depressive action on the dehydrogenase activity of *Ascaris suum* and list the oils and their fractions in order of decreasing strength as follows: dill oil, pine oil, limonene, linalool, eucalyptus oil, methol, mint oil (commercial sample), menthone, mint oil (from resin), anise oil, carvone, coriander oil, cumin oil and carrot oil. There was a correlation between this activity and the biological action of the ethereal oils which depended on the type of the oil. On *Paramecium*, the effect varied somewhat for the different oils. G.I.P.

955—Ulster Medical Journal.

- a. DALES, H. C., 1955.—“A case of hydatid cyst in County Antrim.” **24** (1), 58–59.

956—United States Armed Forces Medical Journal.

- a. KIEHL, P. V. & MITCHENER, Jr., J. S., 1955.—“Schistosomiasis of the colon treated by resection.” **6** (7), 1053–1057.
- b. OSEASOHN, R. O., GARFINKEL, B. T. & FIGUEROA, E., 1955.—“Chronic dysentery due to mixed parasitic infestation in children. Proctoscopic findings.” **6** (10), 1449–1451.
- c. ZELMAN, S., 1955.—“*Echinococcus* disease in an American veteran.” **6** (12), 1800–1806.

957—University of California Publications in Zoology.

- a. VOGE, M., 1955.—“North American cestodes of the genus *Mesocestoides*.” **59** (5), 125–156.

(957a) Voge has made a detailed examination of a large number of specimens of *Mesocestoides* from various hosts in North America and now describes their morphology and tabulates their measurements. The genus is extremely variable and many of the criteria hitherto used for the differentiation of species (length of strobila, presence or absence of neck, length to width ratio of mature proglottides, position of vitelline glands and distribution of testes) are not reliable. *M. manteri* and *M. variabilis* are placed in the synonymy of *M. corti*. *M. latus* appears to be composed of a number of morphological variants, some of which intergrade with other species, particularly with *M. corti*, and a concise diagnosis is not possible at present. *M. kirbyi* is a valid and easily recognizable species, in which the cirrus is very thick and muscular. *M. bassarisci* is regarded as a species inquirenda as examination of specimens from the type collection show a high incidence of morphological abnormalities. A small number of European forms were also examined but these were not comparable to the American material. Although *M. lineatus* and *M. variabilis* may be cospecific no conclusion can be reached at present. Voge suggests that the varietal category “forma”, as used by Witenberg for types of *M. lineatus* from different host species, be abandoned.

S.W.

958—Urologiya. Moscow.

- *a. GOLUBCHANSKAYA, A. V., 1955.—[Surgical method in renal echinococcosis.] Year 1955, No. 4, p. 53. [In Russian.]
- *b. DEREVÝANKO, I. M., 1955.—[Echinococcosis of the small pelvis simulating tumour of the bladder.] Year 1955, No. 4, p. 63. [In Russian.]

959—Verhandlungen der Deutschen Zoologischen Gesellschaft. (Zoologischer Anzeiger, Supplementband 18.)

- a. MATTES, O., 1955.—“Entwicklungszyklus und Umwelt, ein Vergleich der Entwicklungsverhältnisse der Dicrocoeliiden mit denen anderer Trematodenfamilien.” Year 1954, pp. 202–213.

(959a) Mattes compares the life-histories of five Dicrocoeliidae—*Dicrocoelium dendriticum*, *Brachylecithum americanum*, *Eurytrema pancreaticum*, *E. procyonis* and *Platynosomum fastosum*—with those of *Fasciola hepatica* and *Opisthorchis felineus* and shows each life-cycle in diagrammatic form. While *Fasciola* and *Opisthorchis* require aquatic intermediaries the five Dicrocoeliidae, which occur in widely differing parts of the world, have all adapted themselves to land snails of the same or closely related families and in some cases make use of insect transport hosts. While the ova of the five species, as well as their larval stages within the intermediaries, show little difference the cercariae, which are subjected to varying environmental conditions, differ markedly both in structure and behaviour.

A.E.F.

960—Věstník Československé Zoologické Společnosti.

- a. WEISER, J., 1955.—“*Neoaplectana carpocapsae* n.sp. (Anguillulata, Steinernematinae), nový cizopasník housenek obaleče jablkenného, *Carpocapsa pomonella* L.” **19** (1), 44–52. [German & Russian summaries pp. 50–52.]

- b. LUCKÝ, Z., 1955.—“Prní nález motolice *Asymphylodora tincae* (Modeer, 1790) v ČSR.” **19** (1), 53–55. [English & Russian summaries p. 55.]
- c. RYŠAVÝ, B., 1955.—“Cizopasní červi pěvců (Passeriformes) Lednické reservace.” **19** (2), 99–118. [German & Russian summaries p. 117.]
- d. DYK, V. & VALENTA, Z., 1955.—“Nález trematoda z podrodu *Phyllodistomum* v pstruhu obecném.” **19** (2), 190–192. [German & Russian summaries p. 192.]
- e. WEISER, J., 1955.—“Příspěvek k znalosti cizopasníků kůrovce *Ips typographus*—II.” **19** (4), 374–380. [German & Russian summaries pp. 379–380.]

(960a) Weiser describes *Neaplectana carpopcapsae* n.sp., from the body-cavity of *Carpocapsa pomonella*. The new species differs from others in the genus by its host and by its size and shape. Drawings of male, female and larva together with Filipev's index are included. C.R.

(960b) Lucký records, for the first time, the occurrence of *Asymphylodora tincae* in the intestine of tench from the River Dyje in southern Moravia. C.R.

(960c) Ryšavý examined 168 specimens of birds belonging to 32 species of Passeriformes in southern Moravia. He records 20 species of helminths. There is a host list and drawings of many of the parasites are included. [No new species are recorded.] C.R.

(960d) Dyk & Valenta record for the first time in Czechoslovakia the occurrence, in the urinary bladder of trout, of *Phyllodistomum bychovskii*. C.R.

(960e) Weiser records the occurrence of *Aphelenchulus contortus*, *A. dispar* and *Diplogaster bütschlii* in *Ips typographus* in Czechoslovakia. C.R.

961—Vestnik Khirurgii Imeni Grekova.

- *a. ANIKANDROV, B. V., 1955.—[Echinococcosis of the thyroid.] **75** (3), 121–122. [In Russian.]
- *b. BREGADZE, I. L., 1955.—[Modification of liver resection in alveolar echinococcosis.] **76** (7), 116–117. [In Russian.]
- *c. BOROVÝI, E. M., 1955.—[Acute obstruction caused by ascariasis.] **76** (10), 119–121. [In Russian.]

962—Vestnik Leningradskogo Universiteta. Seriya Biologii, Geografii i Geologii.

- *a. MARKOV, G. S., 1955.—[Special features of the formation of the fauna of endoparasites in the ontogenesis of vertebrates.] **10** (7), 3–15. [In Russian.]

963—Vestnik Rentgenologii i Radiologii. Moscow.

- a. GALAGUTSKI, A. P., 1955.—[Unusual case of parasitic multiple lesions of the striated muscles.] Year 1955, No. 2, pp. 89–91. [In Russian.]

(963a) Oval calcified capsules, varying in opacity and measuring 0.5×1.0 cm., were accidentally disclosed during the X-ray of a 53-year-old woman; they were present in very large numbers in the musculature of the legs, and less so in the arms, neck, intercostal muscles and diaphragm, but not in the tongue, heart, feet and wrists. The pointed capsules were lying along the muscle fibres and contained disintegrating parasites of undetermined cysticercal or probably trichinous origin, as weak eosinophilia still persisted. G.I.P.

964—Veterinär-Medizinische Nachrichten. Marburg.

- a. WETZEL, R., 1955.—“Wesen und Bedeutung der tierischen Parasiten.” Year 1955, No. 4, pp. 189–200.

(964a) In this lecture which he delivered as part of the celebrations of the 348th anniversary of the Justus Liebig College at Giessen, Wetzel surveys the economic and hygienic significance of animal parasites. He shows the pressing need for more research in this comparatively young subject and emphasizes the fact that it is subclinical infections which cause most harm, thus making parasite control a very important part of preventive veterinary medicine. A.E.F.

965—Veterinársky Časopis. Bratislava.

- a. CHYLA, M., 1955.—“Vyhodnotenie ovoškopických metód pri diagnostike *Fasciola hepatica*.” 4 (1), 47–56. [German & Russian summaries pp. 55–56.]
- b. TEPPER, I., 1955.—“Príspevok k výskytu hystrichózy na Slovensku.” 4 (1), 59–64. [German & Russian summaries p. 64.]
- c. BUŠA, V., 1955.—“Príspevok k dynamike výskytu mikrosetárií v krvi koní.” 4 (2), 99–109. [German & Russian summaries pp. 107–109.]
- d. STEFAŃSKI, W., 1955.—“Biocenotické vzťahy medzi parazitofaunou a bakteriálnou flórou tráviaceho traktu.” 4 (3/4), 153–162.
- e. VODRÁŽKA, J., 1955.—“O účinku piperazinu na škrkavku ošípaných in vitro.” 4 (3/4), 169–173. [German & Russian summaries p. 173.]
- f. MACKO, J. K., 1955.—“Nový trematód rodú *Metorchis Looss, 1899*.” 4 (3/4), 173–179. [German & Russian summaries pp. 178–179.]
- g. KAŠTÁK, V., 1955.—“*Azygia lucii Müller, 1776* (Trematoda), nový parazit rýb na Slovensku.” 4 (3/4), 179–182. [German & Russian summaries pp. 181–182.]
- h. IVANOV, I. I., 1955.—“Biochémia helmintov.” 4 (3/4), 195–207; (5), 294–309.
- i. BREZA, M. & KOŇA, E., 1955.—“K výskytu nematódov *Gongylonema pulchrum Molin, 1857* u nás.” 4 (3/4), 214–217.
- j. KÁLDY, A., 1955.—“O stave v parazitológii a o boji proti parazitózam v Madarsku.” 4 (3/4), 226–229.
- k. HOVORKA, J. & PODHÁJECKÝ, K., 1955.—“Vyhodnotenie strát poistených zvierat na helmintózy na Slovensku r. 1954.” 4 (5), 271–276. [German & Russian summaries pp. 275–276.]

(965a) Chyla reports his modification of the sedimentation technique, which is as follows: 3 gm. of bovine faeces or 1 gm. of sheep faeces are mixed to a thin consistency and then filtered through a sieve into a sedimentation tube (3.5 cm. wide and 7.5 cm. high). To this filtrate water is added and it is sedimented for five to six minutes; the top layer of the suspension is then poured off and the sedimenting tube is topped up with water. This operation is repeated three times, so that the sediment is clear. After the third sedimentation 1 c.c. to 2 c.c. of sediment is left and this is emptied into a watch glass and the contents examined under a magnification of 60 to 100. This method is excellent for *Fasciola hepatica*, *Paramphistomum* and *Dicrocoelium ova*. In comparison with other methods of faecal examination Chyla found it to be most reliable.

C.R.

(965b) Tepper reports the occurrence of *Hystrichis tricolor* in domestic and wild duck in Slovakia. Some of the ducks were also infected with *Polymorphus minutus* and *Filicollis anatis*.

C.R.

(965c) In order to find the influence of the external factors on the occurrence of microfilariae of *Setaria equina*, Buša examined blood from the cutaneous capillaries and from the jugular vein. He found that there is nocturnal periodicity and that the highest number of microfilariae is found between 8 p.m. and 12 a.m. Later the microfilariae leave the capillaries but there is still a larger number of them in the blood than in the day-time. During high atmospheric pressure the daily number of microfilariae was the highest and vice versa during low atmospheric pressure. At high atmospheric pressure the number of microfilariae was the highest in the capillaries and lower in the jugular vein, and vice versa at low atmospheric pressure. There is a possibility that higher night temperature of the animal influences to a certain degree this nocturnal periodicity. The appearance of larvae in capillaries and the jugular vein depends to a certain extent on the temperature of the air. At high temperatures the number of microfilariae is near minimum and in the jugular vein there are more of them than in the capillaries. At minimum day temperatures this is reversed. Referring to moonlight he states that the last quarter, with little light, showed the largest number of microfilariae in the blood. The introduction of adrenaline (subcutaneously and intravenously) increased the number of microfilariae in the blood. The number of horses under experiment was two. C.R.

(965d) Stefański reviews the literature dealing with the relationships between parasites and bacterial flora in the intestinal tract. His conclusion is that there is a reciprocal tolerance in general and sometimes a reciprocal interdependence between helminths and the bacterial flora.

C.R.

(965e) Vodrážka, in a kymographic study of the action of piperazine on *Ascaris lumbrioides* from the pig, found it to be effective in a comparatively high concentration. C.R.

(965f) Macko describes *Metorchis hovorkai* n.sp. from the bile-ducts of *Nyroca nyroca*. The author differentiates it from the similar species *M. tenor*, *M. xanthosomus*, *M. zakharovi* and *M. intermedius*. In addition the differences are shown in a table and in drawings. C.R.

(965g) For the first time for Slovakia, Kašták reports *Azygia lucii* from the oesophagus of *Lota lota* from the Danube at Bratislava. C.R.

(965h) [This is a Czech translation of a paper which appeared in *Trudi Gelmint. Lab.*, 1950, 4, 139-166. For abstract see Helm. Abs., 19, No. 838t.]

(965i) Breza & Kóna report finding *Gongylonema pulchrum* in sheep imported from Russia, and also in one animal in another flock. This is the first record of *G. pulchrum* in Slovakia. C.R.

(965j) This is a summary of a lecture delivered by Kotlán at the Veterinary Faculty in Košice. It deals with the problems of control of parasites and the organization of parasitology in Hungary. C.R.

(965k) Hovorka & Podhájecký, in this article on the estimation of losses produced by helminthiasis in insured animals, found that fascioliasis in sheep produced 37% and in cattle 14.9%, lungworms in sheep 31.6% and in cattle 10.5%, intestinal helminths in sheep 3.2%, and gid 2.8% of losses. They try to give an answer as to which helminthiasis produced the highest losses, in which months of the year, and an estimate of losses in particular districts of Slovakia. The seasonal incidence and district losses are tabulated. The highest losses from helminths are in March and April and are recorded in the districts of Banska Bystrica and Košice. C.R.

966—Veterinářství. Brno.

- *a. DYK, V., 1955.—“Prevence parazitů.” [Prevention of parasitic diseases.] 5 (2), 44-46.
- *b. ZAJÍČEK, D. & VALENTA, Z., 1955.—“Několik parazitárních invazí u skotu importovaného z Turecka.” [Several parasite invasions in cattle imported from Turkey.] 5 (3), 69-70.
- *c. VOKROJ, F., 1955.—“Případ pokročilé echinokokosy u prasnice.” [A case of advanced echinococcosis in sow.] 5 (3), 93.
- *d. DYK, V. & ZAVADIL, R., 1955.—“Přehled závažných parazitárních onemocnění prasat a jejich tlumení.” [Survey of serious parasitic diseases of pigs and its suppression.] 5 (4), 113-117.

967—Veteriner Fakültesi Dergisi. Ankara Üniversitesi.

- a. PAMUKCU, A. M. & MİMİOĞLU, M., 1955.—“Merkeplerde görülen endoparazitler ve bunların kandaki eosinophil leucocyte'lerle olan münasebeti.” [The internal parasites observed in donkeys and the relationship between the parasites and blood eosinophilia.] 2 (3/4), 141-165. [English summary pp. 159-160.]
- b. MİMİOĞLU, M., 1955.—“Samsun, Ordu, Giresun ve Bolu vilâyetlerinde ‘hematuria vesicalis bovis’ li sigirlarda parazitolojik araştırmalar.” 2 (3/4), 183-192. [German summary p. 191.]

(967b) Cattle with haematuria were examined for parasites in the provinces Samsun, Ordu, Giresun and Bolu but there was no correlation between this complaint and the presence of the helminths *Dicrocoelium dendriticum*, *Fasciola hepatica*, hydatid, trichostrongylid species, *Trichuris ovis* and *Gongylonema pulchrum*. G.I.P.

968—Vie et Milieu. Paris.

- a. THÉODORIDÈS, J., 1955.—“Contribution à l'étude des parasites et phorétiques de coléoptères terrestres.” Suppl. 4, 310 pp.

(968a) In this monograph Théodoridès gives short descriptions of the many instances of parasitism and phoresis by protozoa, helminths, acarines, entomophagous insects and fungi in terrestrial Coleoptera and particularly in species of Scarabaeidae, Tenebrionidae and

Chrysomelidae collected in the French Mediterranean region, in Indre-et-Loire, Ile de Terschelling, Morocco and Madagascar. The list of species found contains four unnamed cysticercoids and 36 nematodes. One cysticercoid occurred in *Tentyria mucronata* and two in *Phylan abbreviatus* from the Eastern Pyrenees and one in *Morica favieri* from Casablanca, Morocco. Of the nematodes, the following are described and figured from female specimens. *Thelastoma brumpti* n.sp. from the larva of *Anomala dubia* var. *aenea* [not differentiated from other species] is doubtfully placed in this genus and not in *Cephalobdellus* as the tail is subfiliform not conical; *T. macramphidium* var. *gallica* n.var. from larval *Oryctes nasicornis*, *Cetonia* sp. and *Potosia cuprea*; *Cephalobdellus brevicaudatus* var. *cetonicola* n.var. from larvae of *Cetonia* sp. and *Potosia cuprea*; *Cephalobdellus dollfusi* n.sp. from *Anomala* sp. larvae, approaching *C. leuckarti* but with a longer caudal mucron and a smaller egg; *C. sp.*? from *Oryctes nasicornis* larvae; *Artigasia pauliani* n.sp., characterized by the presence of cuticular neck spines; and *A. geopoliti* n.sp., in which neck spines are absent, from *Semicyclus grayi*. *Streptopharagus kutassi* (Schulz) is given as n.comb. (Chabaud, 1954). The larva of *Ascarops strongylina* is now recorded from a new host *Geotrupes stercorarius*. *Physocephalus sexalatus* larvae have been found for the first time in *Geotrupes spiniger*, *G. niger*, *G. pyrenaicus* and *Aphodius fimetarius*. *Ascaris cuspidatum* Rudolphi is transferred to *Thelastoma* as a new combination with a more detailed and illustrated description of the female. *Diplogaster aphodii* in *Aphodius fossor* is a new record for France and the Low Countries and *Bradyinema rigidum* is new to the Low Countries. *Rhabditis insectivora* is new to Corsica and Metropolitan France and is now recorded in *Dorcus parallelipipedus*. The various parasites mentioned in the text are also tabulated under their hosts. Théodoridès' observations appear to support Baer's opinion that parasites reveal two distinct types of specificity—ethological and phylogenetic. In an appendix there are short notes on the successful cultivation in Quintanilha medium of dauerlarvae of *Diplogaster parastriatus* obtained from *Geotrupes mutator*, a new record of this nematode in France; on the resistance of third-stage larvae of *Physocephalus sexalatus* to -4°C. and on the extreme rarity of males in Thelastomatidae. The monograph concludes with an extensive bibliography.

R.T.L.

969—Vojnosanitetski Pregled. Belgrade.

- a. GAŠPAROV, A. & AVRAMOV, N., 1955.—“Klinički i rendgenološki znaci askaridoze.” [Clinical and radiological signs of ascariasis.] **12** (11/12), 594-599.

970—Voprosi Neirokhirurgii.

- *a. VASIN, N. Y., 1955.—[Surgical treatment of cysticercosis of the fourth ventricle and post-operative course.] **19** (4), 28-35. [In Russian.]

971—Wasmann Journal of Biology.

- a. MEYER, M. C. & BARDEN, Jr., A. A., 1955.—“Leeches symbiotic on Arthropoda, especially decapod Crustacea.” **13** (2), 297-311.

(971a) This article brings together the existing information on the ten species of Piscicolidae and five of Glossiphoniidae infecting arthropods and comments upon the nature of the host-symbiont bond of rhynchobdellids which apparently may vary from phoresis to parasitism. The new records made in this paper are *Crangonobdella murmanica* (on *Sclerocrangon boreas*) from Point Barrow, Alaska, and *Myzobdella lugubris* (on *Callinectes sapidus*) from Cameron Parish, Louisiana, from unidentified crabs from brackish waters of Texas and Louisiana and from oysters and the prawn *Palaeomonetes vulgaris* from Grand Isle, Louisiana. G.I.P.

972—Wiadomości Lekarskie.

- *a. KASPRZAK, W. & PAWŁOWSKI, Z., 1955.—“Uwagi o laboratoryjnym wykrywaniu pasożytów jelitowych człowieka.” [Laboratory detection of intestinal parasites in man.] **8** (1), 20-25.
 *b. GOLDSZTEJN, J. & KUCZBORSKIA, J., 1955.—“Przypadek przemijającego nacieku płuc z eozynofilią na tle zarobaczenia przewodu pokarmowego.” [Case of passing pulmonary eosinophilia secondary to helminthiasis.] **8** (1), 41-44.

973—Wiadomości Parazytologiczne. Warsaw.

- a. WIŚNIEWSKI, W. L., 1955.—“Zagadnienia biocenologiczne w parazytologii.” **1**, 7-41. [German & Russian summaries pp. 38-41.]
- b. GERWEL, C., 1955.—“Zwalczanie pasożytów przewodu pokarmowego człowieka w Polsce.” **1**, 53-82. [German & Russian summaries pp. 77-82.]
- c. KOZAR, Z., 1955.—“Przegląd pozostałych, aktualnych w Polsce zagadnień parazytologii lekarskiej.” **1**, 83-103. [German & Russian summaries pp. 98-103.]
- d. STEFAŃSKI, W., 1955.—“Stan badań nad inwazyjnymi chorobami pastwiskowymi.” **1**, 104-116. [German & Russian summaries pp. 114-116.]
- e. POLUSZYŃSKI, G., 1955.—“Przegląd pozostałych prac z parazytologii weterynaryjnej oraz parazytologii rybackiej i ogólnej.” **1**, 117-140. [German & Russian summaries pp. 135-140.]
- f. SKRYABIN, K. I., 1955.—“Perspektywy rozwoju radzieckiej helminthologii—teoretycznej i praktycznej.” [The development of theoretical and practical helminthology in Russia.] **1**, 149-164. [German & Russian summaries pp. 162-164.]
- g. WEISER, J., 1955.—“Parazytologia na usługach rolnictwa.” **1**, 186-191. [German & Russian summaries pp. 190-191.]
- h. BORCHERT, A., 1955.—“Aktualne problemy parazytologiczne.” [Present day problems in parasitology.] **1**, 192-195. [German & Russian summaries pp. 194-195.]

(973a) In a consideration of the problem of biocoenosis in parasitology, Wiśniewski discusses under the heading “the host as the surrounding medium” the structure of parasite populations, the quantitative relationships of various parasite species in a host, the restricted parasite mass of a host species and the quantitative regulation of parasites in the host. Under the heading “the circulation of parasites in biocoenosis” he deals with the various stages in the life-cycle of parasites in the conditions of Lake Druzno. G.I.P.

(973b) The papers published in Poland since 1952 on the occurrence and control of intestinal parasites in man are summarized. G.I.P.

(973c) This is a critical discussion of papers published during the last two years in Poland on medical parasitology (excluding intestinal parasites). Special reference is made to cerebral cysticerciasis, trichinelliasis, paragonimiasis and some protozoan diseases. G.I.P.

(973d) The work done in the last two years in Poland on parasitic infections, mainly helminths, in cattle and sheep on pasture is reviewed. G.I.P.

(973e) Papers on general and veterinary parasitology and on the parasites of fish that have not been included in the above reviews [see abstracts Nos. 973b, 973c, 973d above] are summarized. G.I.P.

(973g) This brief discussion on the biological control of insects includes a section on their helminth parasites. G.I.P.

974—Wisconsin Medical Journal.

- a. MADDEN, R. F. & GARRY, M. W., 1955.—“Diphyllobothriasis (fish tapeworm infestation). A case report and review of current concepts.” **54** (8), 375-377.

(974a) Madden & Garry describe a case of *Diphyllobothrium* infection in man in Wisconsin. Although there is no information available on the incidence in this State it is believed to be comparatively rare, only seven cases being recorded in the major Milwaukee hospitals since 1945. The patient was successfully treated with atabrine. S.W.

975—Wissenschaftliche Zeitschrift der Friedrich-Schiller-Universität Jena.

- a. ODENING, K., 1955.—“Über die Parasitenfauna des Wasserfrosches (*Rana esculenta* Linné) in einigen mitteldeutschen Biotopen.” Mathematisch-Naturwissenschaftliche Reihe, **4** (4/5), 487-508.

(975a) Odening has examined a total of 255 *Rana esculenta* from seven districts of central Germany. Among the parasites recovered were 13 species of trematodes, five of nematodes and two acanthocephalans. None is new. Odening discusses the relation of the varying

biotopes and the feeding habits of the frogs to the degree of infection. He summarizes the results of his investigations in a series of tables and also surveys (with references to the literature) earlier work on the parasitic fauna of *R. esculenta*.
A.E.F.

976—Wissenschaftliche Zeitschrift der Humboldt-Universität zu Berlin.

- a. SEIFERT, L., 1955.—“Untersuchungen über das Verhalten von parasitären Eigebilden in konzentrierter Kochsalzlösung.” Mathematisch-Naturwissenschaftliche Reihe, 4 (3), 209–212. [English, French & Russian summaries pp. 211–212.]
- b. SINNECKER, H., 1955.—“Über die Bedeutung städtischer Abwässer für die Verbreitung von Infektionsmöglichkeiten. II. Die äusseren Infektketten von *Taenia saginata* (Goeze 1782) vom Menschen zum Rind im Kreis Cottbus.” Mathematisch-Naturwissenschaftliche Reihe, 4 (4), 325–328. [English, French & Russian summaries p. 328.]
- c. TIMM, W., 1955.—“Untersuchungen mit *Strongyloides ransomi* (Schwartz und Alicata 1930) und *S. papillosus* (Wedl 1856) beim Kaninchen.” Mathematisch-Naturwissenschaftliche Reihe, 4, (4), 329–336. [English, French & Russian summaries pp. 335–336.]

(976a) Studying the different behaviour of nematode eggs in concentrated saline as used for the flotation method, Seifert shows [although the summaries state the reverse] that thin-shelled eggs complete their ascent to the surface more quickly (four to five minutes) than thick-shelled eggs (about ten minutes but thirty minutes in the case of *Capillaria* and *Trichuris*). Species with thick-shelled eggs appear to remain at the surface and always develop to the embryo, which may remain viable for four weeks (as in the case of *Parascaris equorum*); thin-shelled eggs sink within three days (*Bunostomum*) to nine days (*Strongylus*) and although development occurs, the embryo stage is not usually reached.
G.I.P.

(976b) Sinnecker reports that the incidence of *Cysticercus bovis* in cattle slaughtered at Cottbus (60 miles south-east of Berlin) increased from 1·2% in 1940 to 3·95% in 1954. Investigations at 56 farms from which infected cattle had come showed that in 48% of the farms there was direct contamination of pasture or cattle food with human faeces, in 37·5% pasture was contaminated by irrigation with sewage or infected river water, and in 14·3% both types of contamination were present. Although the percentage of farms contaminated by sewage was less than that directly affected by human faeces the former is thought to be more dangerous because it is likely to spread infection over a wider area. Of 117 farm workers examined at the 56 farms three were found to be *Taenia saginata* carriers.
A.E.F.

(976c) Timm reports on his experimental infections of rabbits with *Strongyloides* and on the specific diagnosis of ova and larvae. Four animals were infected with *S. papillosus* and four with *S. ransomi*, and three each with a second passage of each species. The prepatent period for *S. papillosus* was eight to nine days and for *S. ransomi* six to eight days. Egg measurements of the two species overlapped in such a way as to make specific diagnosis impossible. Measurements of filariform larvae also showed some overlapping between the species but measurements for total length and length of tail were significantly greater for *S. ransomi* than for *S. papillosus*. Treatment with the crystal violet preparation Badil (20 mg. per kg. body-weight on three or five successive days) was completely successful. Attempts to infect rabbits with *S. myopotami* failed.
A.E.F.

977—Wissenschaftliche Zeitschrift der Universität Rostock.

- a. SCHMIDT, J., 1955.—“Zur Populationsdynamik des Kartoffelnematoden.” Mathematisch-Naturwissenschaftliche Reihe, 4 (2), 187–190.

(977a) This is a longer version of Schmidt's earlier paper [for abstract see Helm. Abs., 24, No. 261h]. He points out that the rate of multiplication of *Heterodera rostochiensis* which occurred in pot experiments with low initial infestations is greater than would appear possible if only one generation of nematodes had been produced. By taking newly formed cysts from potatoes in nutrient agar cultures and inoculating fresh cultures five generations were

produced in 15 months. A single generation took 12-14 weeks to develop and hatching of the larvae was not related to the time of year. Inoculations carried out with single larvae in no case gave cysts, ruling out the possibility of parthenogenetic reproduction.

M.T.F.

978—Yearbook. California Avocado Society.

- a. SHER, S. A., 1955.—“Nematodes and the avocado.” **39**, 81-83.

(978a) In this short popular article Sher points out the dangers of parasitic nematodes in orchards and mentions methods of control but states that at present they are not a serious problem in southern California avocado.

M.T.F.

979—Zeitschrift für Tierpsychologie.

- a. EIBL-EIBESFELDT, I., 1955.—“Über die Abwehr von Pferdeegeln (*Haemopis sanguisuga* L.) durch Frösche und Molche.” **12** (2), 175. [English summary p. 175.]

(979a) Eibl-Eibesfeldt observed that *Rana temporaria*, *R. arvalis*, *Bufo bufo*, *Pelobates fuscus* and one *Triturus cristatus* to which specimens of *Haemopis sanguisuga* had attached themselves, attempted to rid themselves of the parasites by means of their legs and, when this failed, came on to land and remained there until the leech dried.

S.W.

980—Zentralblatt für Gynäkologie.

- a. KLUSMANN, G. & KÖTTING, G., 1955.—“Ein Beitrag sur Frage Oxyuren und weibliches Genitale.” **77** (15), 591-598.

981—Zhurnal Obshchei Biologii.

- a. LOGACHEV, E. D., 1955.—[The development and formation of male sex cells in cestodes.] **16** (4), 291-297. [In Russian.]

(981a) The development of the male cells of *Diphyllobothrium latum*, which Logachev describes and illustrates, differs from that in higher animals in that primary spermatogonia divide to give rise to rather small secondary spermatogonia which unite into a multinucleate mass termed by the author spermatogonial symplast. On further development of the symplast, elongated nuclei give rise to the spermatozooids while other nuclei undergo degeneration.

G.I.P.

982—Zooiatria. Santiago de Chile.

- a. SOLÍS, E. T., 1955.—“Contribución al estudio de la medicación de la estrongilosis equina con fenotiazina.” **4** (15), 3-14.

(982a) When phenothiazine, with or without a mineral and vitamin supplement, was administered to several dozen horses at rates of 10 gm. on three consecutive days (repeated in some instances after 15 days' rest), 5 gm. for six consecutive days or 3 gm. for 15 or 21 consecutive days, the reduction effected on the strongyle egg count did not last more than 40 days.

M.MCK.

983—Zoological Magazine. Tokyo.

- a. SAWADA, I., 1955.—[*Raillietina (Raillietina) galli* Yamaguti is a synonym of *Raillietina (Raillietina) tetragona* (Molin).] **64** (4), 105-107. [In Japanese: English summary pp. 106-107.]
- b. SAWADA, I., 1955.—[On the fauna of chicken tapeworms in Japan.] **64** (6), 198-199. [In Japanese: English summary p. 199.]
- c. SAWADA, I. & OKADA, H., 1955.—[Studies on the morphology of successive stages in the development of *Raillietina (Skrjabinia) cesticillus* oncosphere to mature cysticercoid.] **64** (10), 316-320. [In Japanese: English summary p. 320.]

(983a) On re-examining specimens of the chicken cestode *Raillietina (Raillietina) galli* Yamaguti, 1935 from Japan, Sawada found discrepancies with the original description. He

also found specimens of *R. (R.) tetragona* with anteriorly situated genital pores, a character used by Yamaguti to differentiate *R. (R.) galli* from *R. (R.) tetragona*. Sawada compares these two species by means of a table and shows that they correspond.

J.M.

(983b) Sawada revises the list of 14 species in eight genera of tapeworms of chickens in Japan, given by Iwata in 1935, and reduces it to nine species in three genera.

J.M.

(983c) Sawada & Okada follow the development of the cysticercoids of *Raillietina (Skrjabinia) cesticillus*, the fowl tapeworm, in three species of ground beetles, new intermediate hosts for this cestode in Japan. Fully developed cysticercoids were fed to young chickens and developed into adult *R. (S.) cesticillus*.

J.M.

984—Zoologické a Entomologické Listy.

- a. TENORA, F. & BARUŠ, V., 1955.—“Nálezy cizopasné hlístice *Heligmosomum skrjabini* (Trichostrongylidae).” 4 (1), 51–54. [Russian summary p. 53.]
- b. ERHARDOVÁ, B. & RYŠAVÝ, B., 1955.—“Příspěvek k poznání cizopasných červů našich myší a hrabošů.” 4 (1), 71–88. [Russian summary p. 88.]
- c. REHNOVÁ, M., 1955.—“Příspěvek k poznání mezihostitelů plícnivky obecné *Müllerius capillaris* v ČSR.” 4 (2), 159–164. [German & Russian summaries p. 164.]
- d. DYK, V., 1955.—“Další nálezy cizopasníků ryb moravskoslezských vod.” 4 (2), 165–166. [Russian summary p. 166.]
- e. TENORA, F., 1955.—“Předběžná zpráva o cizopasných červech hraboše tatranského *Microtus (Chionomys) mirhanreini*.” 4 (2), 194–200. [German & Russian summaries p. 200.]
- f. RYŠAVÝ, B., 1955.—“Motolice (Trematoda) u kosů černých (*Turdus merula* L.) v pražském okolí.” 4 (3), 271–274. [German & Russian summaries p. 274.]
- g. ERHARDOVÁ, B., 1955.—“Helmintofauna hrabošů a myší Tatranského národního parku.” 4 (4), 353–364. [German & Russian summaries pp. 363–364.]

(984a) This is the first record of *Heligmosomum skrjabini* in Czechoslovakia and *Apodemus flavicollis* appears to be a new host for this species. The authors mention the following slight differences from the original description: the depth of the indentation between the right and left lobe of the copulatory bursa, the endings of the spicules and the length of the oesophagus which, in both males and females, is longer; they have, however, no doubt that the species in *H. skrjabini*.

C.R.

(984b) Erhardová & Ryšavý made a survey of the helminths in 765 small rodents (*Apodemus flavicollis*, *A. agrarius*, *A. microps*, *A. sylvaticus*, *Clethrionomys glareolus*, *Pitymys subterraneus*, *Microtus arvalis* and *Mus musculus*). They recorded *Plagiorchis* sp., *Paranoplocephala brevis*, *Catenotaenia pusilla*, *Skrjabinotaenia lobata*, *Hymenolepis asymmetrica*, *H. diminuta*, *H. fraterna* and larval stages of *Taenia pisiformis*, *T. polyacantha* and *T. taeniaeformis*. Among the nematodes they note *Syphacia obvelata*, *Aspiculuris tetraptera*, *Heligmosomum polygyrum*, *H. costellatum*, *Trichuris muris*, *Hepaticola hepatica*, *Capillaria muris-sylvatici* and one acanthocephalan—*Moniliformis moniliformis*. The authors give measurements of recorded species, and intensity and percentage of infection. Many illustrations are included.

C.R.

(984c) Rehnová was successful in obtaining, under experimental conditions, the infective stage of *Muellerius capillaris* in 17 species of mollusc, nine of which are new intermediate hosts. A detailed description is given of the developing stages in the snail. There are plates illustrating the larvae in the tissues of the snails and the more common intermediate hosts of *M. capillaris*. Rehnová thinks that any snail may become an intermediate host if it comes in contact with the larvae.

C.R.

(984d) Dyk gives a list of helminths recorded in fish in Moravia (eight monogenean and two digenetic flukes and one nematode).

C.R.

(984e) Tenora examined 42 specimens of *Microtus (Chionomys) mirhanreini* and recorded in them the following species of helminths: *Paranoplocephala brevis*, *P. omphalodes*, *Cysticercus tenuicollis*, *C. crassicipitis*, *Heligmosomum* sp. I and *Heligmosomum* sp. II, *Aspiculuris* sp. indet. and *Syphacia obvelata*.

C.R.

(984f) Ryšavý in the district of Prague examined 79 blackbirds (*Turdus merula*) and found 30·4% of them infected with flukes. *Lyperosomum turdia* was found in the gall-bladder and bile-ducts of four blackbirds. The infestation varied from two to six specimens. *Lutzrema skrjabini* n.sp. was found in 20 birds with the intensity of one to thirteen specimens in the gall-bladder and bile-ducts. It differs in size from *L. obliquum* Travassos, 1941, and in the size of the oral and ventral suckers, which are larger in the new species, and also in the shape of the ovary which is round.

C.R.

(984g) Erhardová examined a large number of small rodents from Tatra National Park and among 21 recorded helminths she describes *Hymenolepis ampla* n.sp. from *Microtus nivalis mirhanreini*. It differs from *H. microstoma* by the greater length of the strobila, the larger and differently shaped hooks, the larger size of the testes and cirrus sac, and the larger size and shape of the ovary which is branched. The other new species is *Heligmosomum taticum* n.sp. from *M. nivalis mirhanreini*, *Pitymys taticus* and *M. agrestis*. The new species differs from *H. polgyrum* by the large size and shape of the spicules and the different dorsal and extero-dorsal rays.

C.R.

985—Zoologische Jahrbücher. Abteilung für Allgemeine Zoologie und Physiologie der Tiere.

- a. JUNG, T., 1955.—“Zur Kenntnis der Ernährungsbiologie der in dem Raum zwischen Harz und Heide vorkommenden Hirudineen.” **66** (1), 79–128.

986—Zooprofilassi.

- a. VALENTI, G. & PANEBIANCO, F., 1955.—“Modificazione del colloide serico e della formula leucocitaria nella infestazione echinococcica sperimentale della capra.” **10** (3), 135–140. [French summary p. 140.]
 b. PANEBIANCO, F., 1955.—“La thelaziosi oculare dei bovini—segnalazione di alcuni focolai della malattia in Calabria ed in Sicilia.” **10** (11/12), 653–658. [English & French summaries p. 658.]

(986b) *Thelazia rhodesii* in cattle was found widely distributed in the provinces of Catanzaro and Reggia Calabria (48 out of 250 cattle examined were infected) and occurred sporadically in the area of Messina. The worms, usually present in both eyes and numbering on the average ten to twenty per animal, caused lachrymation and photophobia. G.I.P.

987—Zucker.

- *a. SEKERA, F., 1955.—“Die Nematodengefahr—ein bodenbiologisches Problem.” **8**, 329–331.

NON-PERIODICAL LITERATURE

*988—AGUIRRE COLORADO, C., 1955.—“Informe médico social del pueblo de Mecatepec, Tabasco. Breve estudio del camoquinal en la ascariasis y otras parasitosis intestinales.” Thesis, Mexico, 53 pp.

989—ALLGÉN, C., 1955.—“Free-living nematodes.” Reports of the Swedish Deep-Sea Expedition 1947–1948. Zoology, **2** (2), 175–179.

Allgén describes and figures *Leptosomatatum bathybiuum* n.sp. and *Desmodora nybelini* n.sp., both marine free-living nematodes, captured at a depth of 4,540–4,600 m. by the Swedish Deep-Sea Expedition of 1948. He thinks the former is a male but the specimen is a young one and badly placed on the mount. The latter is also a single male but in better condition. It is briefly differentiated from *D. tenuispiculum* in having wider whorls on the amphids. There is a brief review of records of nematodes at various depths in the ocean.

J.B.G.

- 990—BAER, J. G., 1955.—“Facteurs écologiques et spécificité parasitaire.” International Ornithological Congress, 11th (1954), Proceedings, pp. 293–295.

In this discussion of ecological factors and parasite specificity, Baer points out that the cestodes of birds show a high degree of host specificity, each group of birds possessing its own tapeworm fauna. He then goes on to discuss the evolution of the Tetrabothriidea and of their hosts (especially Sphenisciformes, Procellariiformes and Pelecaniformes), both parasites and hosts in these groups stemming from common ancestors, and shows that the tetrabothriids found in members of the Lari are comparatively recent acquisitions, derived from cestodes originally living in the intestines of petrels or frigate birds. Examining the distribution of species of cestodes in the Procellariiformes it is apparent that different species of host nesting on the same island become infected with the same species of cestode. He points out that his conclusions differ from those reached by Clay in her study of the Mallophaga of the same groups of birds.

S.W.

- 991—BAER, J., JOYEUX, C. & SICÉ, A., 1955.—“Tabulae parasitorum intestinalium.” Basle: F. Hoffmann—La Roche & Cie, 24 pp.+12 plates.

- 992 BAILER, A., 1955.—“Vergleichende Untersuchungen zwischen Wurmbefall und Wurmeier-befunden bei Hühnern.” Dissertation, Munich, 38 pp.

Of 128 head of poultry examined for helminths at Warthausen (Württemberg), 122 (95.3%) were positive. Heterakids were found in 116, ascarids in 25, *Capillaria* in 62, “small tapeworms” in 60, and “large tapeworms” in 18. The number of eggs and proglottides found in the faeces was compared with the number of worms recovered from the intestine. It was found that only in the case of *Capillaria* was there any correlation between egg count and worm count: in all other cases faecal examination gave no indication of the severity of infection. Young birds are more heavily infected: a definite resistance to infection develops with age, especially against *Capillaria* and “small tapeworms”.

A.E.F.

- *993 BUSSIERAS, J. A., 1955.—“Les perturbations métaboliques d’origine vermineuse.” Thesis, Lyons, 54 pp.

- *994 COLBERG CABRERAS, R., 1955.—“Esquistosomiasis visceral en Puerto Rico.” Thesis, Mexico, 42 pp.

- 995—COLE, W. H. [Editor], 1955.—“Some physiological aspects and consequences of parasitism.” [Symposium.] New Brunswick: Rutgers University Press, xi+90 pp.

- a. READ, C. P., 1955.—“Intestinal physiology and the host-parasite relationship.” pp. 27–43.
b. BUEDING, E., 1955.—“Studies of the glycolytic enzymes of *Schistosoma mansoni*.” pp. 44–49.

(995a) Read brings together the published data on helminth physiology and host-parasite relationships. Most of the work has been done on *Hymenolepis diminuta* but there is also considerable information available on *Raillietina cesticillus*, *Moniezia*, *Taenia pisiformis*, *T. saginata* and *Oochoristica symmetrica*. He discusses the availability of carbohydrates to lumen parasites and points out the almost paradoxical fact that for *H. diminuta* (and probably other tapeworms) starch is more beneficial as the host dietary carbohydrate, than is either glucose or sucrose, although the cestode cannot utilize it directly. The effect of intestinal secretions on tapeworm excystation and the relationship between intestinal emptying time and the ability of cestodes to establish themselves in particular hosts is also discussed in the light of his own and others' experimental work. Two electron photomicrographs of transverse sections of the surfaces of immature proglottides of *H. diminuta* and *R. cesticillus* illustrate villus-like structures, possibly protoplasmic extensions of the subcuticular cells, on the surfaces and he postulates that these may be in an intimate relation with the protoplasmic villi on the

villi of the host intestine. He concludes that although the development of successful *in vitro* techniques will answer many questions it will not be a magic key to the secrets of the host-parasite relationship.

S.W.

(995b) Bueding compares the glycolytic enzymes of *Schistosoma mansoni* with those host enzymes which catalyse the same reactions. The phosphoglucose isomerase from *S. mansoni* is so similar to that from rabbit muscle that they can only be distinguished by immunological studies. The lactic dehydrogenases, on the other hand, show significant kinetic differences, the pH optima for the schistosome enzyme being significantly lower than for the mammalian enzyme and the optimal concentrations and dissociation constants for pyruvate being six to twelve times higher for the schistosome enzyme. The hexokinases show kinetic differences and differences in substrate specificities; there is considerable evidence for the presence of several hexokinases in the schistosome. That glucosamine has a specific toxic effect on *S. mansoni* and that immune sera affect the activities of schistosome enzymes may be of great importance in the contribution to a more rational approach towards the chemotherapy of schistosomiasis. The action of organic antimony compounds on worm enzymes is summarized.

S.W.

*996—DURRANI, M. Z., 1955.—“A study on the biology of *Dicrocoelium dendriticum* (Rudolphi 1819) Looss 1899 (Trematoda Dicrocoeliidae) with special reference to its parasitism in the first intermediate host *Cionella lubrica*.” Thesis, Cornell University, 75 pp.

*997 GIANNONI TORRES, D. A., 1955.—“La esquistosomiasis de Manson.” Thesis, Mexico, 60 pp.

*998—HULL, T. G. [EDITOR], 1955.—“Diseases transmitted from animals to man.” Springfield, Ill.: Charles C. Thomas, 4th edit., 717 pp.

999—INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, 1955.—“Opinion 340. Validation, under the Plenary Powers, of *dentatus* Diesing, 1839, as published in the combination *Stephanurus dentatus* as the specific name for the kidney worm of swine.” Opinions & Declarations rendered by the International Commission on Zoological Nomenclature, **10** (7), 201–250.

1000—INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE, 1955.—“Opinion 341. Addition to the Official List of Generic Names in Zoology of the generic names *Anguina* Scopoli, 1777, and *Tylenchus* Bastian, 1865 (Class Nematoda) (Opinion supplementary to Opinion 160).” Opinions & Declarations rendered by the International Commission on Zoological Nomenclature, **10** (8), 251–270.

1001—IVASHKIN, V. M., 1955.—[Helminths of farm animals of the Mongolian People’s Republic.] Moscow: Izdatelstvo Akademii Nauk SSSR, 216 pp. [In Russian.]

1002—LECHNER, G., 1955.—“Vergleichende koprologische Untersuchungen zum Nachweis des Leberegelbefalls bei Schafen.” Dissertation, Munich, 61 pp.

*1003—LE GUILLOUX, M., 1955.—“L’ascaridiose du poulain.” Thesis, Alfort, 63 pp.

1004—MAKAR, N., 1955.—“Urological aspects of bilharziasis in Egypt.” Cairo: Société Orientale de Publicité, viii+208 pp.

1005—MOZLEY, A., 1955.—“Sites of infection. Unstable areas as sources of parasitic diseases: schistosomiasis and fascioliasis.” London: H. K. Lewis & Co. Ltd., x+86 pp.

1006—OSCHMANN, K. G., 1955.—“Über die periodische Eiausscheidung von Endoparasiten des Schafes.” Dissertation, Munich, 43 pp.

Oschmann has studied the variations, at different times of day, in the egg counts of faeces from sheep infected with helminths. Twenty sheep were examined over periods of up to ten days. The egg count of a single sheep varied between two and 2,525 in the same day. The highest counts were made when faeces were collected in the morning before feeding and it is concluded that faecal examinations for the diagnosis of helminth infections should be made at that time.

A.E.F.

*1007—PANOVA, L. G., 1955.—[Fascioliasis of farm animals.] Moscow: Gosudarstvennoe Izdatelstvo Selskokhozyaistvennoi Literatury, 32 pp. [In Russian.]

1008—RODRIGUES DA SILVA, J., 1955.—“Quimioterapia por via oral na esquistossomose mansoni.” Rio de Janeiro: 220 pp. [Mimeographed.]

1009—RUF, M., 1955.—“Die Widerstandsfähigkeit der Eier und Larven von Geflügelnematoden unter natürlichen Umweltbedingungen, sowie gegenüber der Einwirkung ultravioletter Strahlen.” Dissertation, Munich, 77 pp.

Ruf has studied the effects of environment on the survival and development of ova and larvae of the following nematode parasites of poultry: *Ascaridia galli*, *Heterakis gallinae*, *Capillaria longicollis*, *Syngamus bronchialis* and *S. trachea*. Experiments under natural conditions were carried out both in the laboratory and in the field. He found that the optimal temperature for the development of ova, both in water and in the soil was 29°C. The development and survival of ova in soil depends on temperature, humidity and the presence of oxygen. Only at a surface humidity of less than 5% do eggs desiccate quickly. Segmented ova are less resistant to desiccation than unsegmented, and unsegmented and embryonated ova can overwinter in the soil. In dry and sandy soils ova die in the course of a few months: damp and rainy summers are very favourable to the development of ova. Exposure to ultra-violet light for 20 minutes killed most but not all ova and larvae and even after 60 minutes irradiation a very small percentage still survived. Ruf concludes that control of the ova and larvae in the soil is not possible except under dry and sunny conditions and that a thorough attack on intermediate and transport hosts will always remain of the greater importance.

A.E.F.

1010—SPENGLER, R., 1955.—“Die Lebensfähigkeit von Eiern und Larven der wichtigsten Wurm parasiten unserer Haustiere an Futtermitteln vor und nach der Trocknung.” Dissertation, Munich, 45 pp.

Spengler reports on a series of field experiments carried out to determine the viability of ova and larvae of domestic animal helminths on fodder crops and grass before and after drying. Although all *Fasciola hepatica* ova and most *Trichonema* sp. ova die during winter *Ascaris* ova and 60% of *Dictyocaulus filaria* larvae can survive. No difference was observed in viability during the summer of ova and larvae attached to fodder crops as compared with those in faeces in grass meadows. With the exception of *F. hepatica* ova, which were very sensitive to sunlight, none of the ova or larvae studied were killed by physical influences. From his work on the survival of ova and larvae in dried fodder, Spengler concludes that if infected green crops are converted after artificial drying into concentrates reinfection of animals is not possible. Crops dried on the ground are fairly, although not 100%, safe as food. Various methods of indoor drying of hay are described which do not destroy ova and larvae unless high temperatures (over 45°C.) are reached. *F. hepatica* ova develop principally on waterlogged ground around drinking troughs: paved surrounds will help to control this parasite.

A.E.F.

*1011—VASILKOVA, Z. G., 1955.—[Methods of helminthological investigations.] Moscow: Medgiz, 228 pp. [In Russian.]

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NOTE

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In the Author Index there are no cross-references to show joint authorship, but authors of joint papers are listed individually. Thus, a paper by "Brown, B., Jones, A. & Smith, J." would have three separate entries, "Brown, B.", "Jones, A.", and "Smith, J.".

In the Index of Subjects, alphabetization is under the first word (e.g. "*Acer* sp." before "*Acerina* sp."). Under the generic name of a helminth the following order is observed: papers on the genus as such; papers on undefined species; papers on new and defined species, e.g.

- Capillaria*
- spp.
- *aerophila*
- *amarali* n.sp.

In cross-entries under names of hosts, the specific names of new species of helminths are omitted. Hosts are indexed under their scientific names, where given, except domesticated animals (e.g. cat, pig, sheep), crop plants (e.g. oats, rye, tobacco), and where numerous hosts of the same group are listed in the one paper (e.g. amphibians, birds, cereals, legumes, mammals).

Anthelmintics are listed alphabetically under that word, either by their trade name or by the active principle. There are no cross-references between proprietary drugs having the same or similar constituents and no classification of the drugs is attempted. They are also entered under the name of the parasite or disease and under the name of the host. For eelworms parasitic in or on plants they are entered alphabetically under *Nematicides* (*plant eelworm*) and under the name of the eelworm.

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No.*

47j (Abstract)

Line 1 *Delete "British"*

403k (Title)

*For "HALL, J. E. & SONNENBERG, B." read "HALL,
J. E., SONNENBERG, B. & HODES, J. R."*

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467 (Abstract)

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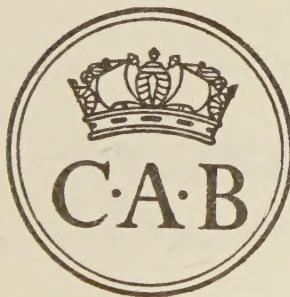
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